TOSHIBA

TELEVISORE A COLORI

15V300PG

Stampato su carta riciclata. Al 100% senza cloro.

La specifica è soggetta a modifiche senza preavviso.

AVVISO PER LA SICUREZZA

I componenti contrassegnati con il simbolo internazionale di pericolo devono, se cambiati, essere sostituiti con tipi approvati e essere monatti come gli originali. Ciòassicure il mantenimento della conformità agli standard di fabbrica durante ogni procedura di assistenza e riparazione.

OSSERVAZIONE DELLE TENSIONI E DELLE FORME D'ONDA

1. I valori di tensione sono stati ottenuti mediante un voltmetro digitale ad alta impedenza.
2. La polarità (–) o il filo di massa degli strumenti va collegato al terminale di mass contrassegnato con (⊥) nello scherma durante il controllo di circuiti non isolati circondati dal segno e ai a punticontrassegnati con (⏚) durante il controllo di circuiti isolati.
3. IU valori di tensione presentano tolleranza di ±20%.
4. Controllare che i comandi di sintonia, A.F.C. (controllo automatico di frequenza), luminosità, contrasto e colore siano regolati in modo de, della luminosità e del colore siano regolati in posizione centrale.
5. Le forme d'onda sono state rilevate usando un normale segnale a barre colorate e sono state usando un oscilloscopio a banda larga, via una sonda a bassa capacità.

NOTE:

1. Diagramma di circuito soggetto a modifiche senza preavviso.

SIMBOLO DI MASSA

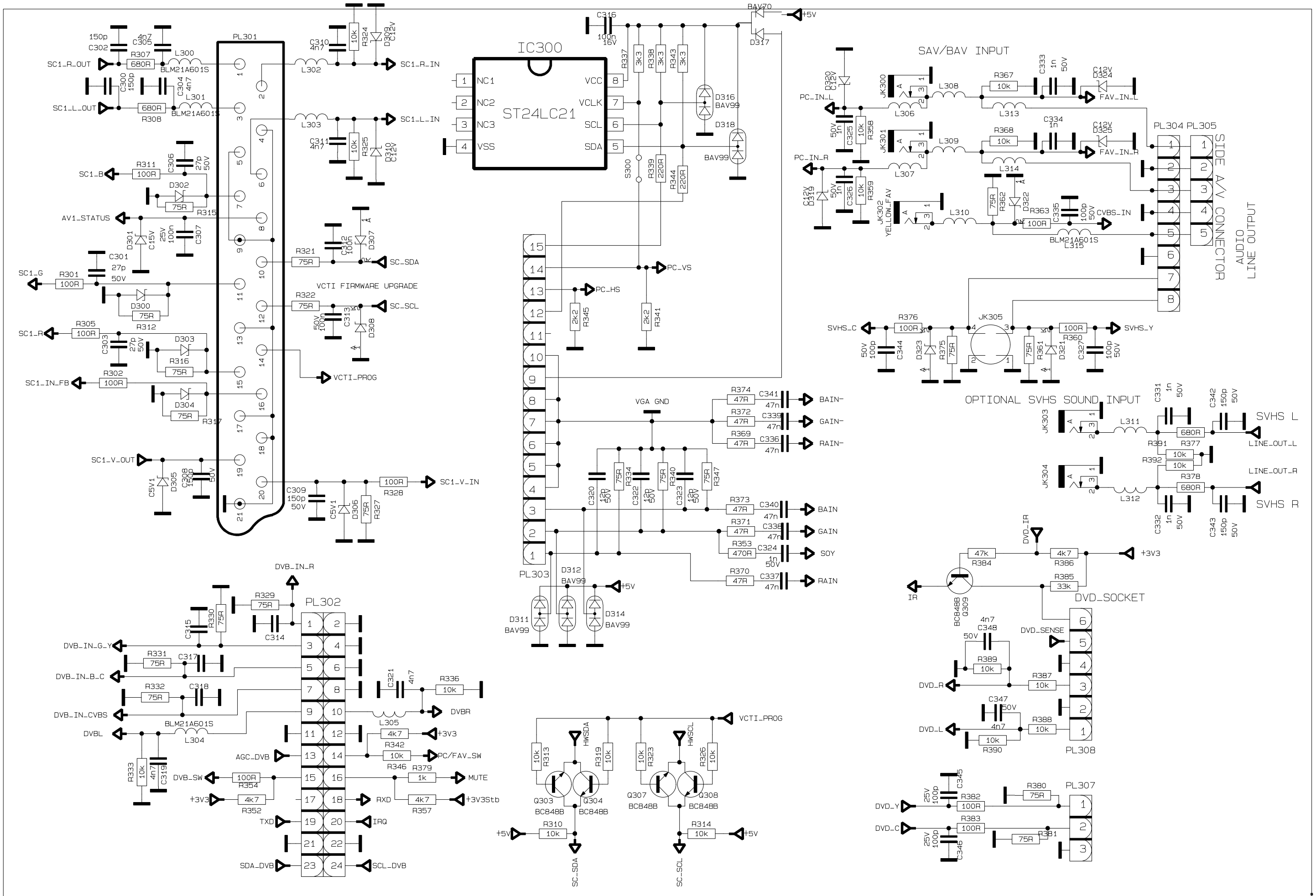
1. ⊥: Massa non isolanta, ⏚: Massa isolata.

ESPRESSIONE

VALORE DI RESISTORE, CONDENSATORE e INDUTTORE

1. La resistenza è indicata in ohm, k=1.000, M=1.000.000.
2. Salvo alttrimenti specificato negli schemi, tutti i condensatori di valore inferiore a 1 sono espressi con μF, mentre quelli di valore superiore a 1 sono espressi con pF.
3. Salvo altrimenti specificato negli schemi, tutti gli induttori di valore superiore a 1 sono espressi con μH, mentre quelli con valore inferiorea 1 sono espressi con H.

ID-TV UYGULAMASINDA 2K LIK EEPROM TAKILACAK 3001678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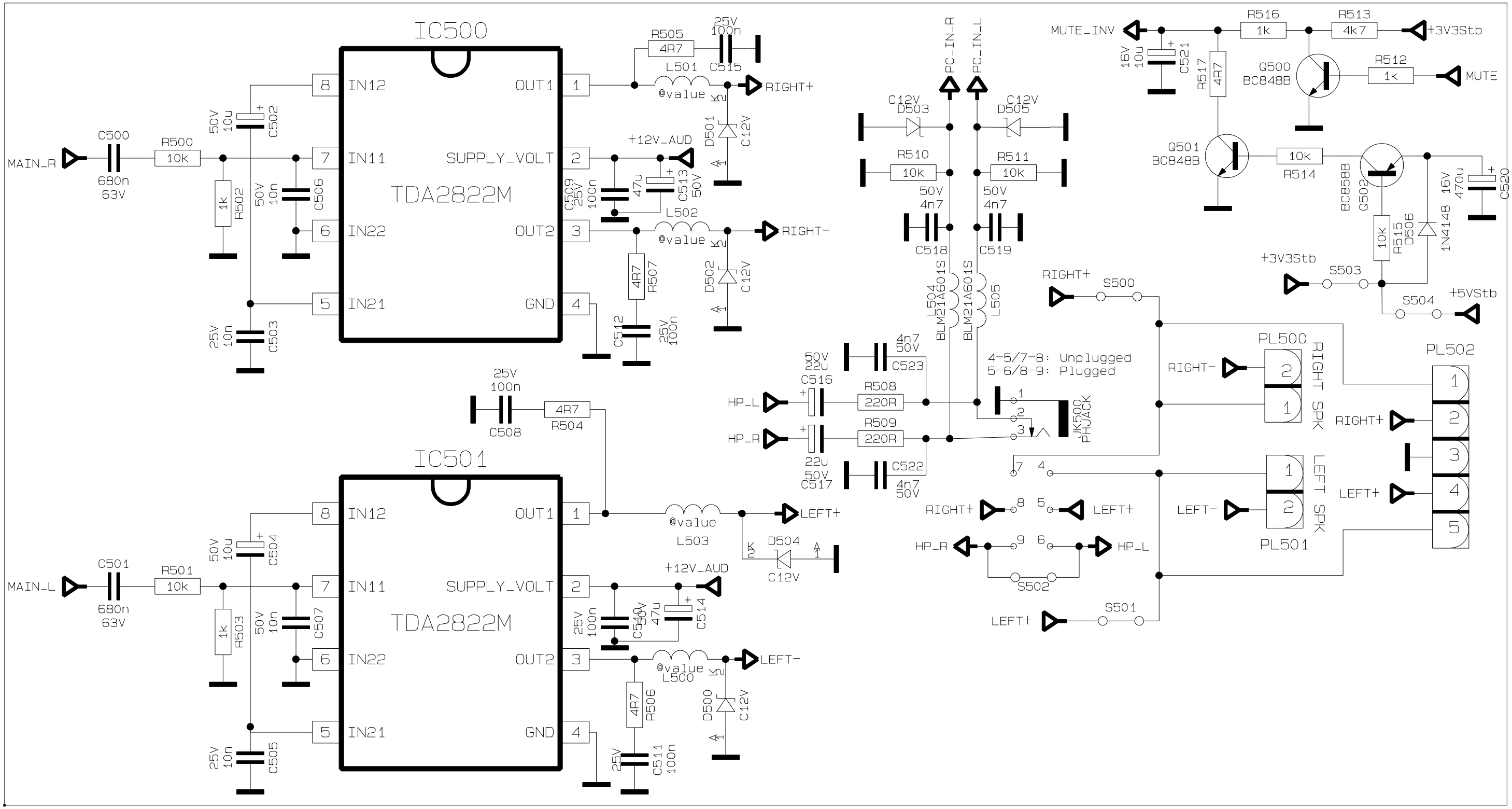
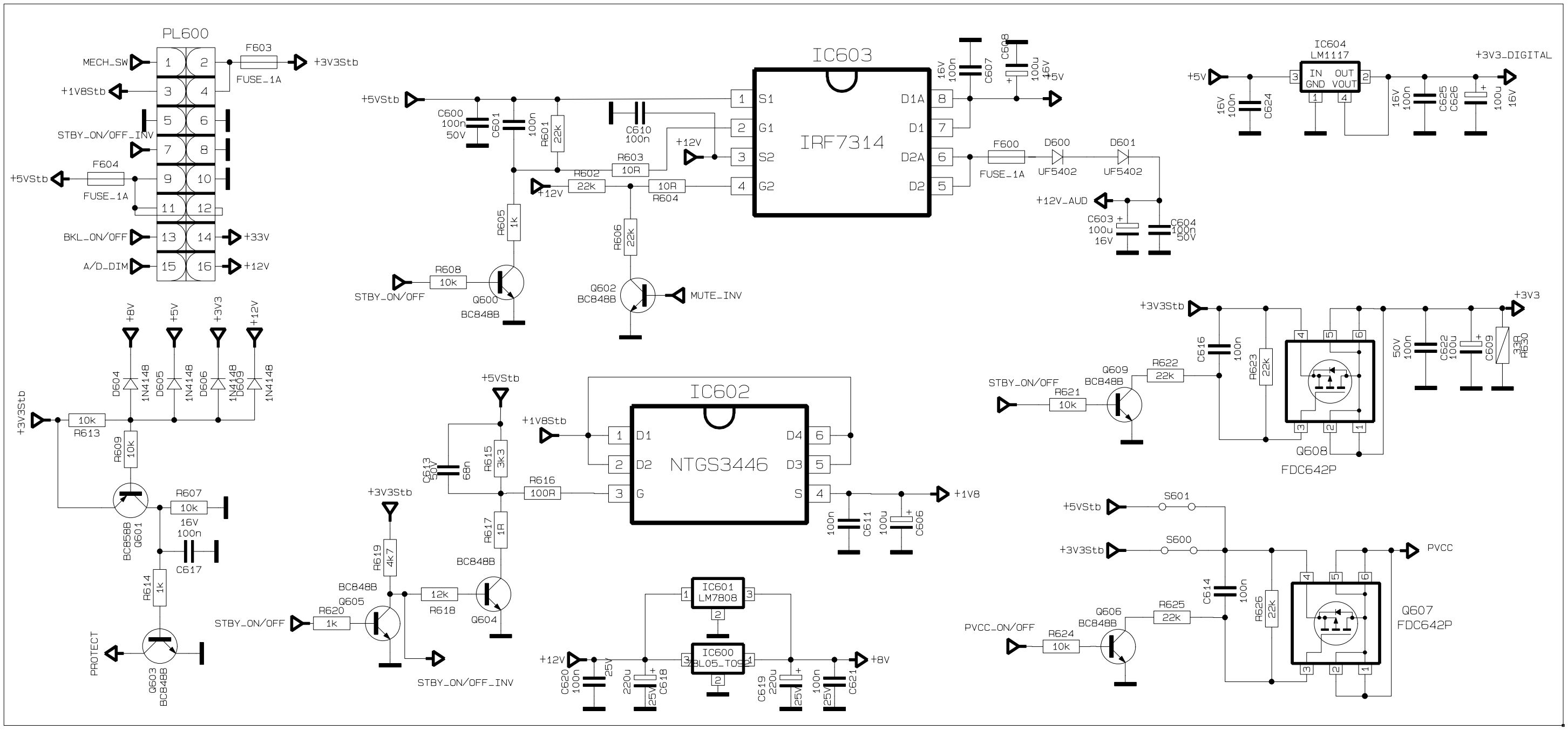
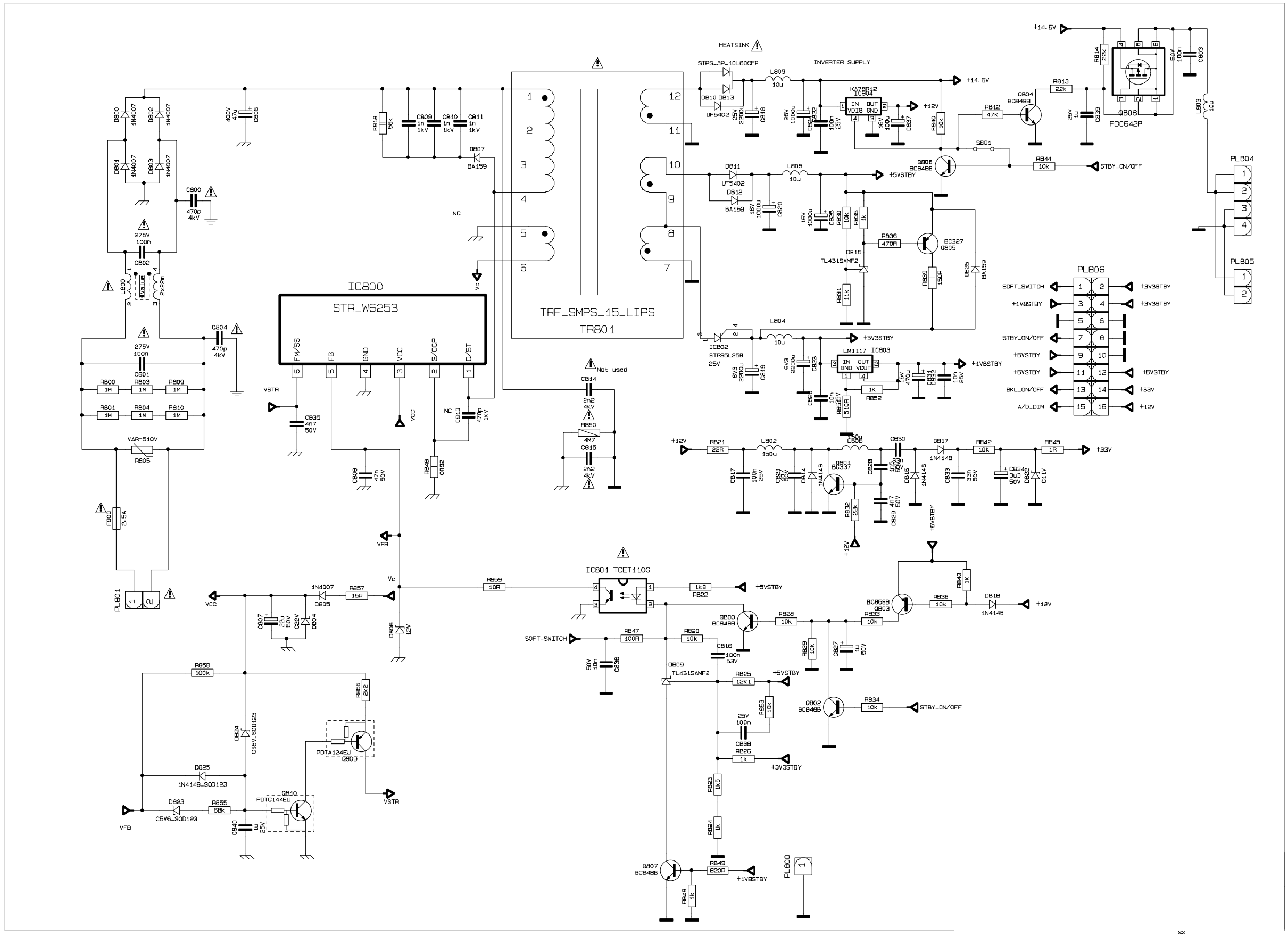
SC1_R_OUT
SC1_L_OUT
SC1_B
AV1_STATUS
SC1_G
SC1_R
SC1_IN_FB
SC1_V_OUT
SC1_R_IN
SC1_L_IN
SC_SDA
SC_SCL
VCTI FIRMWARE UPGRADE
VCTI_PROG
SC1_V_IN
IC300
ST24LC21
NC1
NC2
NC3
VSS
VCC
VCLK
SCL
SDA
BAV70
+5V
PC_VS
PC_HS
VGA GND
BAIN-
GAIN-
RAIN-
BAIN
GAIN
SOY
RAIN
PL303
SAV/BAV INPUT
PC_IN_L
PC_IN_R
FAV_IN_L
FAV_IN_R
CVBS_IN
PL304 PL305
SIDE A/V CONNECTOR
AUDIO
LINE OUTPUT
OPTIONAL SVHS SOUND INPUT
SVHS_C
SVHS_Y
SVHS L
SVHS R
LINE_OUT_L
LINE_OUT_R
DVB_IN_R
DVB_IN_G_Y
DVB_IN_B_C
DVB_IN_CVBS
DVBL
DVBR
AGC_DVB
DVB_SW
PC/FAV_SW
MUTE
RXD
TXD
IRQ
SDA_DVB
SCL_DVB
PL302
+3V3Stb
HWSDA
HWSCL
Q303
Q304
Q307
Q308
BC848B
SC_SDA
SC_SCL
DVD_IR
IR
DVD_SOCKET
DVD_SENSE
DVD_R
DVD_L
PL308
DVD_Y
DVD_C
PL307

IC400

TSU36AWL_M_LF


IC500
TDA2822M
IN12
IN11
IN22
IN21
OUT1
SUPPLY_VOLT
OUT2
GND
MAIN_R
C500
680n
63V
R500
10k
R502
1k
C502
50V
10u
C506
50V
10n
C503
25V
10n
R505
4R7
C515
25V
100n
L501
@value
RIGHT+
D501
C12V
+12V_AUD
C509
25V
100n
C513
47u
50V
L502
RIGHT-
D502
C12V
R507
4R7
C512
25V
100n
IC501
MAIN_L
C501
680n
63V
R501
10k
R503
1k
C504
50V
10u
C507
50V
10n
C505
25V
10n
C508
25V
100n
R504
4R7
L503
@value
LEFT+
D504
C12V
C510
25V
100n
C514
47u
50V
L500
@value
LEFT-
D500
C12V
R506
4R7
C511
25V
100n
PC_IN-R
PC_IN-L
C12V
D503
D505
R510
10k
R511
10k
50V
4n7
C518
C519
L504
BLM21AG01S
L505
BLM21AG01S
4n7
50V
C523
C516
22u
50V
R508
220R
R509
220R
C517
22u
50V
C522
4n7
50V
HP_L
HP_R
4-5/7-8: Unplugged
5-6/8-9: Plugged
JK500
PHJACK
MUTE_INV
C521
16V
10u
R516
1k
R513
4k7
+3V3Stb
R517
4R7
Q500
BC848B
R512
1k
MUTE
Q501
BC848B
10k
R514
BC858B
Q502
10k
R515
D506
1N4148
16V
470u
C520
+3V3Stb
S503
+5VStb
S504
RIGHT+
S500
PL500
RIGHT SPK
RIGHT-
PL502
RIGHT+
LEFT SPK
LEFT+
LEFT-
PL501
RIGHT+
LEFT+
HP_R
HP_L
S502
LEFT+
S501


PL600
MECH_SW
+1V8Stb
STBY_ON/OFF_INV
+5VStb
BKL_ON/OFF
A/D_DIM
F603
FUSE_1A
+3V3Stb
F604
FUSE_1A
+33V
+12V
+8V
+5V
+3V3
+12V
D604 1N4148
D605 1N4148
D606 1N4148
D609 1N4148
1N4148
+3V3Stb
10k R613
R609 10k
BC858B Q601
R607 10k
16V 100n C617
R614 1k
PROTECT
Q603 BC848B
+5VStb
C600 100n 50V
C601
100n
R601 22k
C610 100n
+12V
R603 10R
R602 22k
+12V
10R R604
R605 1k
R606 22k
R608 10k
STBY_ON/OFF
Q600 BC848B
Q602 BC848B
MUTE_INV
IC603
IRF7314
S1
G1
S2
G2
D1A
D1
D2A
D2
16V 100n C607
C608 100u 16V 5V
F600
FUSE_1A
D600 UF5402
D601 UF5402
+12V_AUD
C603 100u 16V
C604 100n 50V
IC604
LM1117
IN OUT
GND VOUT
+5V
16V 100n C624
16V 100n C625
C626 100u 16V
+3V3_DIGITAL
+5VStb
+1V8Stb
IC602
NTGS3446
D1
D2
G
D4
D3
S
C613 50V 68n
R615 3k3
R616 100R
+3V3Stb
R617 1R
BC848B
R619 4k7
BC848B
Q605
R620 1k
STBY_ON/OFF
12k R618
Q604
STBY_ON/OFF_INV
100n C611
100u C606
+1V8
IC601
LM7808
IC600
78L05_TO92
+12V
C620 100n 25V
220u 25V C618
C619 220u 25V
100n 25V C621
+8V
+3V3Stb
C615 100n
R623 22k
Q609 BC848B
R622 22k
STBY_ON/OFF
R621 10k
Q608
FDC642P
50V 100n
C622 100u
C609
33R R630
+3V3
+3V3Stb
S601
S600
PVCC
C614 100n
R625 22k
Q606 BC848B
R625 22k
PVCC_ON/OFF
R624 10k
Q607
FDC642P


IC800
STR_W6253
FK/SS
FB
GND
VCC
S/OCP
D/ST
TRF_SMPS_15_LIPS
TR801
HEATSINK
INVERTER SUPPLY
STPS_3P_10L60CFP
UF5402
DB10 DB13
L809
10u
KA7812
IC804
+14.5V
+12V
+5VSTBY
+3V3STBY
+1V8STBY
+33V
STBY_ON/OFF
SB01
Q804
BC848B
Q806
FDC642P
R814
22k
R813
22k
R812
47k
R844
10k
R840
10k
L803
10u
PL804
PL805
PL806
SOFT_SWITCH
STBY_ON/OFF
+5VSTBY
BKL_ON/OFF
A/D_DIM
+3V3STBY
+33V
+12V
DB11
UF5402
DB12
BA159
L805
10u
R830
10k
R835
1k
R836
470R
Q805
BC848B
BC327
Q805
DB15
TL431SAMF2
R831
11k
R839
150R
DB26
BA159
L804
10u
ICB02
STPS5L25B
25V
LM1117
IC803
+1V8STBY
R852
1k
R850V
510R
L802
150u
R821
22R
Q801
BC337
R832
22k
R842
10k
R845
1R
DB17
1N4148
DB18
1N4148
R838
10k
R843
1k
Q803
BC858B
R833
10k
R828
10k
Q800
BC848B
R829
10k
R827
1u
50V
R834
10k
Q802
BC848B
R853
10k
R826
1k
R823
1k5
R824
1k
Q807
BC848B
R849
820R
R848
1k
+1V8STBY
PL800
R822
1k8
R847
100R
R820
10k
C816
100n
63V
R825
12k1
DB09
TL431SAMF2
ICB01 TCET1100
R859
10R
R857
15R
1N4007
DB05
DB06
L2V
C807
22u
50V
C221
DB04
VCC
VFB
Vc
R858
100k
R856
2k2
DB24
C18V-SOD123
PDTA124EU
Q809
VSTR
DB25
1N4148-SOD123
Q810
PDTC144EU
DB23
C5V6-SOD123
R855
68k
C840
1u
25V
R850
4R7
C815
2n2
4kV
Not used
C814
2n2
4kV
R846
0R82
C813
470p
1kV
NC
C835
4n7
50V
C809
47n
50V
R818
56k
C809
1n
1kV
C810
1n
1kV
C811
1n
1kV
DB07
BA159
NC
C800
470p
4kV
275V
100n
C802
L800
6VALUE
2x22u
C804
470p
4kV
C801
R800
1M
R803
1M
R809
1M
R801
1M
R804
1M
R810
1M
VAR-510V
R805
F800
2.5A
PL801
DB00
1N4007
DB02
1N4007
DB01
1N4007
DB03
1N4007
400V
47u
C806
DB08
1N4148
C817
100n
25V
DB21
1N4148
DB14
1N4148
C828
150u
25V
DB15
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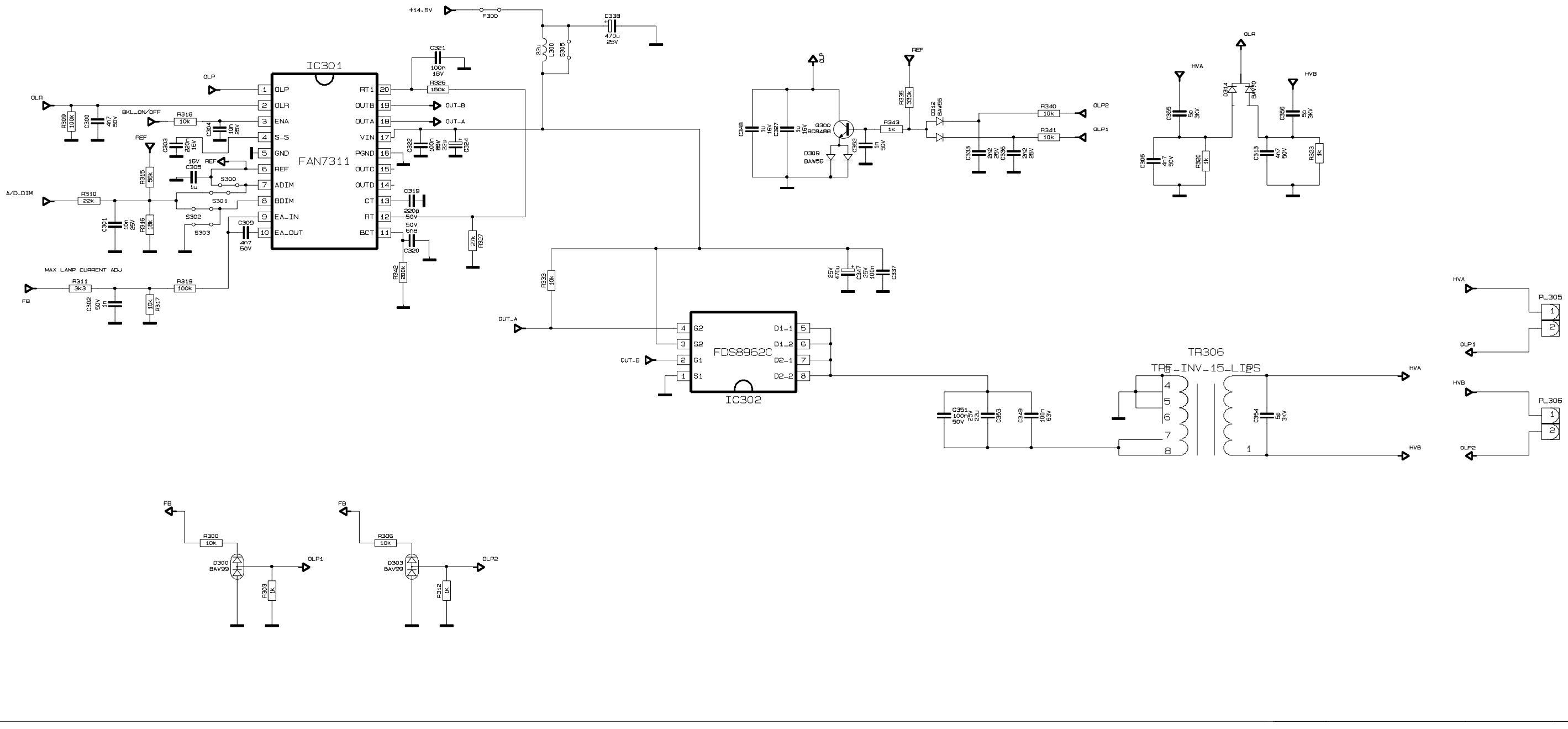
33n
50V
C834
3u3
50V
DB16
C11V
C829
4n7
50V


IC301
FAN7311
OLP
OLR
ENA
S_S
GND
REF
ADIM
BDIM
EA_IN
EA_OUT
RT1
OUTB
OUTA
VIN
PGND
OUTC
OUTD
CT
RT
BCT
BKL_ON/OFF
A/D_DIM
MAX LAMP CURRENT ADJ
FB
OUT_A
OUT_B
+14.5V
F300
L300
S305
S300
S301
S302
S303
R309 100K
C300 4n7 50V
R310 22K
R311 3K3
R312 10K
R313 56K
R314 18K
R315 10K
R316 10K
R317 100K
R318 10K
R319 100K
R326 150K
R327 27K
R342 200K
C301 10n 25V
C302 50V 1n
C303 220n 16V
C304 10n 25V
C305 16V 1u
C309 4n7 50V
C319 220p 50V
C320 50V 6n8
C321 100n 16V
C322 100n 50V
C324 47u 25V
R333 10K
C337 1000u 25V
C347 470u 25V
C338 470u 25V
FDS8962C
IC302
C348 1u 16V
C327 1u 16V
Q300 BC848B
D309 BAW56
R335 330K
R343 1K
D312 BAW56
C332 1n 50V
R340 10K
R341 10K
C333 2n2 25V
C336 2n2 25V
C351 100n 50V
C353 25V 2n2
C349 100n 63V
TR306
TR5_INV_15_LIPS
C354 5p 3KV
HVA
HVB
D314 BA510
C365 5p 3KV
C366 4n7 50V
R320 1K
C313 4n7 50V
R323 1K
PL305
PL306
OLP1
OLP2
D300 BAV99
R303 1K
D303 BAV99
R312 1K
R300 10K
R306 10K

IC100
ST24LC21
NC1
NC2
NC3
VSS
VCC
VCLK
SCL
SDA
R149 3k3
R152 3k3
R160 3k3
16V 100n C124
BAV70
D119
+5V
D118 BAV99
D120
BAV99
S102
R153 220R
R161 220R
PC_VS
PC_HS
D114 BAV99
D116 BAV99
R140 2k2
R142 2k2
VGA CONNECTOR
PL103
C126 12p
R128 75R
C128 12p
R137 75R
C132 12p
R143 75R
R150 100R
R151 100R
R148 100R
VGA_B
VGA_G
VGA_R
D113 BAV99
D115 BAV99
D117 BAV99
IC103
PI5V512
S
IA0
GND_1
IA1
YA
IB0
GND_2
IB1
YB
IC0
IC1
GND_3
VCC
EN
IE0
GND_6
IE1
YE
ID0
GND_5
ID1
YD
GND_4
YC
R290 100R
HDMI_SW
HDMI_PB
S160
VGA_B
S161
BAIN1
HDMI_V
S158
VGA_G
S159
GAIN1
HDMI_PB
VGA_R
S156
S157
SW GROUND
L123 BLM21A601S
C222 100n 16V
C221 100n 16V
HDMI_VS
S105
PC_VS
S116
SW_VS
HDMI_HS
S181
PC_HS
S162
SW_HS
RAIN1
IC101
PI5V330_SOIC
VGA_YPbPR_Sw
RAIN2
S142
PR
S103
GAIN1
S144
Y
S114
GAIN2
BAIN1
S143
PB
S115
BAIN2
16V 100n C149
16V 100n C145
FERIT_SMD L109
+5V
RAIN2
R220 47R
C181 47n
RAIN
10p C174
R214 75R
NC
R218 47R
C180 47n
RAIN-
SW GROUND
GAIN2
470R R226
C186 1n
SOY
R221 47R
C182 47n
GAIN
10p C175
R216 75R
R222 47R
C183 47n
GAIN-
BAIN2
R223 47R
C184 47n
BAIN
10p C176
R217 75R
R224 47R
C185 47n
BAIN-
DVB CONNECTOR
PL104
DVB_IN_R
DVB_IN_G_Y
DVB_IN_B_C
DVB_IN_CVBS
DVB_L_IN
DVB_R_IN
R239 75R
C201
R174 75R
C150
R240 75R
C200
R175 75R
C153
R178 10k
C156 4n7
L115
L116
R185 10k
4n7 C157
TP100
TP101
TP102
TP103
AGC_DVB
SILENCE
MUTEPOR
RXD
TXD
IRQ
SDA_DVB
SCL_DVB
TP104
TP105
TP106
TP107
TP108
TP111
TP109
TP110
R193 4k7
R194 100R
VGA_YPbPR_SW
R189 4k7
R202 4k7
R154 4k7
R156 4k7
PR
Y
PB
L108 FERIT_SMD
C127 100n 16V
R131 33k
R132 33k
R135 33k
R133 33k
R136 33k
R134 33k
C129 4u7 50V
C131 4u7 50V
C130 4u7 50V
R155 47R
R157 47R
R159 47R
75R R162
C138 10p 25V
75R R163
C139 10p 25V
75R R164
C140 10p 25V
16V 100n C141
D121 BAV99
16V 100n C143
D123 BAV99
D122 1N4148
16V 100n C146
D124 BAV99
L112 BLM21A601S
L113 BLM21A601S
L114 BLM21A601S
PR1
Y1
PB1
DVD CONNECTOR
SIDE A/V CONNECTOR
DVD_SENSE
DVD_L_IN
DVD_R_IN
DVD_Y
DVD_C
IR
DVD_IR_ON/OFF
C205 4u7 50V
10k R256
R255 10k
C206 4u7 50V
R257 10k
R258 10k
C207 100p 25V
R259 75R
R261 100R
C208 100p 25V
R262 100R
R260 75R
Q118 BC848B
R265 10k
+3V3
PL108
1n C241
10k R293
10k R294
10k R180
PCIL
SVHS_L_IN
JK100
L110
C147 1n 50V
C151 150p 50V
680R R172
LINE_OUT_L
1n C242
10k R295
10k R296
10k R179
PCIR
SVHS_R_IN
JK101
L111
R173 680R
C148 1n 50V
C152 150p 50V
LINE_OUT_R
PL101
SC2_V_IN
SC2_V_OUT
SC2-C
SC2_L_IN
SC2_L_OUT
SC2_R_IN
SC2_R_OUT
AV2_STATUS
R115 75R
D111
C123 150p
R112 100R
D103
C121 150p
C111 27p
D112
R124 75R
R108 100R
D109
C122 100n
R118 100R
R100 10k
C108 50V 4n7
L100 BLM21A601S
R110 680R
C100 150p 50V
C110 50V 4n7
L103 BLM21A601S
R114 10k
C114 50V 4n7
L107 BLM21A601S
R109 680R
C105 150p 50V
C116 4n7 50V
L102 BLM21A601S
R106 75R
D108
C118 150p
R101 100R
SC1_V_IN
SC1_V_OUT
C117 150p
D105
R123 75R
D102
C243 100n
R105 100R
SC1-IN-FB
R121 75R
D110
C107 27p
R104 100R
SC1-R
C203 100n
D128
R297 10k
S145
CTI_PROG_EN
R117 75R
Tx-Clock
R120 75R
D104
C101 27p
R103 100R
SC1-G
C102 100n
D100
R116 75R
Rx-Data
C103 100n
D101
C120 100n
D107
AV1_STATUS
R119 100R
SC1-B
R122 75R
D106
C119 27p
BLM21A601S L105
R113 680R
SC1_L_OUT
C112 4n7
C104 150p
BLM21A601S L104
R111 680R
SC1_R_OUT
C115 4n7
C106 150p
L101
SC1_R_IN
C109 4n7
10k R107
L106
SC1_L_IN
C113 4n7
10k R102
HWSDA
HWSCL
VCTI_PROG_EN
10k R243
R244 10k
10k R241
R242 10k
Q115 BC848B
Q114 BC848B
Q116 BC848B
Q117 BC848B
+5V
10k R253
Rx-Data
10k R252
Tx-Clock
+8V
C137 100n 16V
R166 27k
R168 470R
BC858B Q104
IF_CVBS_OUT
Q103 BC848B
R167 10k
R170 910R
R171 75R
SC1_V_OUT
R169 820R
C144 47p 50V
C125 100n 16V
R129 27k
R138 470R
BC858B Q102
SC2_OUT
Q101 BC848B
R130 10k
R141 910R
R144 75R
SC2_V_OUT
R139 820R
C133 47p 50V
1n C142
10k R158
SVHS_L_IN
LINE_OUT_L
R155
1n C134
10k R176
10k R177
SVHS_R_IN
LINE_OUT_R
L121
subw.
L122
C204 10p
PL105
JK104
PR1
S141
L119
R203 100R
CVBS_IN
75R R199
D126
C170 100p 50V
SVHS
JK105
R197 75R
R196 75R
D127
D125
C168 100p 50V
C166 100p 50V
SVHS_C
R206 100R
R201 100R
SVHS_Y
PL107
JK103
PB1
L117
S140
R191 10k
FAVINR
R198 10k
C165 50V
Y1
JK102
R207 10k
C169 50V
R195 10k
FAVINL
L118
S139
FROM 100
VESTEL ELECTRONICS
17MB24H I/O INT. 1of5
Date
17.10.2006
Author
GORKEM KOCAGOZOGLU
ISMAIL YILMAZLAR

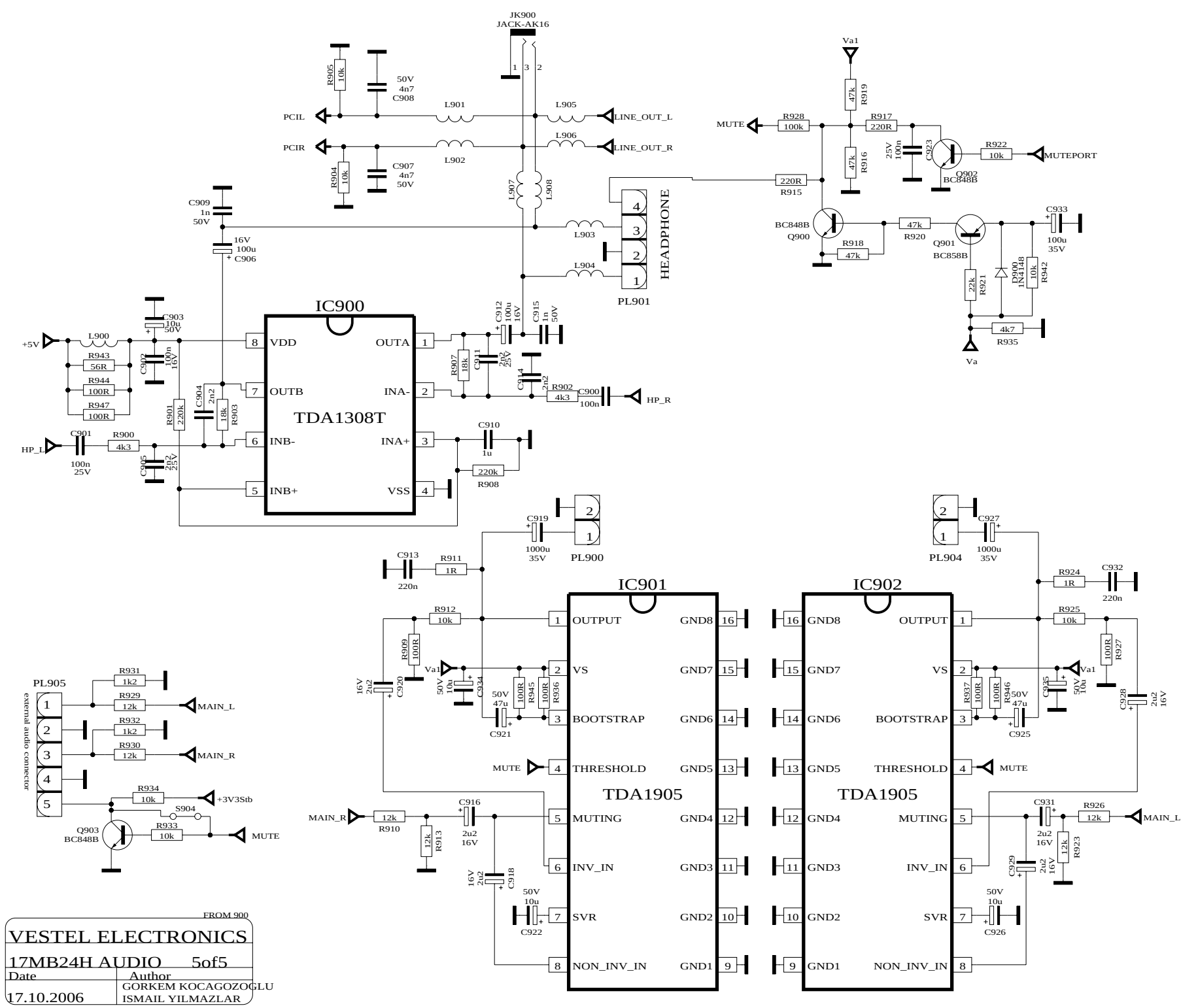
TECH2949PG40B
TU300
IFAGC
IF1
IF2
VST
NC/ADC
VS
NC
SDA
SCL
AS
TU
AGC
ANIF
+3V3
SDA_SW
SCL_SW
GND_TUNER
+8VIF
AGC_SW
optional PTC
S316
IC302
VCT4932
GND1
VSUP8.0AU
VREFAU
SPEAKERL
SPEAKERR
AOUT1L
AOUT1R
AIN3L/AOUT2L
AIN3R/AOUT2R
AIN2L
AIN2R
AIN1L
SIF/AIN1R
TAGC
VREFIF
IFIN-
IFIN+
RESETQ
GNDIF
VSUP5.0IF
VSUP3.3DIG
GND2
GND3
VSUP1.8DIG
XTAL1
XTAL2
20.25MHz
P22
P23
VIN11
VIN10
VIN9
VIN8
VIN7
VIN6
VIN5
VIN4
VIN3
VIN2
VIN1
VOUT1
VOUT2
VOUT3
VSUP1.8FE
GND4
GND8
VSUP5.0BE
TEST
VERT+
VERT-
EW
RSW2
RSW1
SENSE
GNDM
FBIN
RIN
GIN
BIN
SVMOUT
ROUT
GOUT
BOUT
VRD
XREF
VSUP3.BE
GND7
GND6
VSUP3.3IO
VSUP3.3DAC
GNDDAC
SAFETY
HFLB
HOUT
VPROT
SDA
SCL
P21/PWMV
P20/DFVBL
P17
P16
P15
P14
P13
P12
P11
P10
VSUP3.3FE
GND5
SUBW.
DVD_SENSE
DVB_IN_R
DVB_IN_G_Y
DVB_IN_B_C
BLUEO
GREENO
REDO
TV/DVB_SW
VCTI_HS
HWSDA
HWSCL
CS
HDMI_HP_INV
VCTI_CABLE1_DET
POWCON.
AV2_STATUS
DVD_IR_ON/OFF
AV1_STATUS
KEY
INT
MUTEPORT
TXD
RXD
MST_RESET
PROTECT
GA_YPbPR_Sw
KEYPAD
PL303
KEY
MECH_SW
IC300
TEA6422D
GND
CAPACITANCE
VS
HDMI_L_IN
L1
FAVINL
L2
SWITCH_SOUND_L
L3
NC
NC1
SWAUD_OUT_L
SC1_L_IN
L4
DVD_L_IN
SC2_L_IN
L5
SVHS_L_IN
DVB_L_IN
L6
SVHS_L_IN
SWAUD_OUT_L
LOUT1
SWAUD_OUT_R
ROUT1
LOUT2
ROUT2
SDA
SCL
ADDR
R1
HDMI_R_IN
R2
FAVINR
R3
SWITCH_SOUND_R
NC3
NC2
SWAUD_OUT_R
R4
SC1_R_IN
R5
DVD_R_IN
SC2_R_IN
SVHS_R_IN
R6
DVB_R_IN
SVHS_R_IN
ROUT3
LOUT3
PL300
IDTV IF GON.
PL301
PL302
PL303
PL304
PL305
FOR MSTAR DEBUG
FOR FLASH PROG.AND VCTI DEBUG
IC303
24LC32A
IC304
BL05_TO92
IC301
74HCT4053
HWSDA
HWSCL
SDANVM
SCLNVM
SDA
SCL
CS
+3V3Stb
+5V
+8V
+1V8Stb
+5VStb
ON/OFF
TV/DVB_SW
SILENCE
IR
WP
RXD
TXD
LOUT2
ROUT2
LOUT3
ROUT3
SC1_L_OUT
SC1_R_OUT
SC2_L_OUT
SC2_R_OUT
LINE_OUT_L
LINE_OUT_R
FROM 300
VESTEL ELECTRONICS
17MB24H VCTI 2of5
Date
17.10.2006
Author
GORKEM KOCAGOZOG
ISMAIL YILMAZLAR

IC500
MST517A-M

VESTEL ELECTRONICS	
17MB24H VCTI	3of5
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

PL701
JK700
DC_POWER_SOCKET_20V/7.5A
F701
INV
F700
V_PSU
SMD JUMPER OPTION
F709
F705
L703
IC700
IRF7314
S1
G1
S2
G2
D1A
D1
D2A
D2
C705 100n 50V
C702 100n 50V
R703 22k
MECH_SW
22k
R700
V_GATE
C721 470u 35V
C724 100n 50V
SMD JUMPER OPTION
F711
F707
22u
L747
L708
VIN
150R 600mA lik ferit
L710
Va
LM317
IC705
IN
OUT
ADJ
C732 100u 35V
C734 100n 50V
C741 100u 16V
C745 100n 16V
+8V
R710 910R
220R
C736 100u 16V
C739 22u 50V
BC848C
Q703
R718 10k
ON/OFF/NOT
R712 47R
R715 10k
L711
150R 600mA lik ferit
DVD power connector
IDTV power connector
PL709
PL707
C802 100u 35V
L729
F702
Va
F712
F713
D707
1N4007
D723
1N4001
D726
SS33
C722 100n 50V
C725 100u 35V
C795 470u 35V
Va1
IC701
IRF7314
VIN
C700 100n 50V
C701 100n
R702 22k
R729 22k
R705 100R
R706 100R
R704 10k
ON/OFF
Q700
BC848B
R701 1k
R751 22k
R752 75k
ON/OFF
Q708
BC848B
C796 22u 50V
75k
R753
Q712
BC558B
R785 3k3
R769 3k3
R767 4k7
33k
R768
Q713
BC848B
ON/OFF
33k
R770
R771 33k
C706 100n 25V
PL700
150R 600mA lik ferit
L705
L707
PL708
VPS Panel Supply +12V/+5V/+3V3
+VPS
C727 100n 16V
L709 22u
F714
C729 100n 16V
C730 470u 16V
fix output kullanilacak
LM1086
IC702
VIN VOUT
GND
+5V/+3V3
150R 600mA lik ferit
L701
C703 100n 16V
C708 100u 16V
C710 100n 16V
+3V3Stb
C797 100n 16V
22u 16V
C798
R759 220R
C714 100n 16V
C717 100u 16V
150R 600mA lik ferit
L700
R760 390R
1R
R761
PL704
+5VStb
+3V3Stb
150R 600mA lik ferit
L702
IC703
LM1117
IN
OUT
GND
VOUT
C704 100n 16V
C709 100u 16V
C711 100n 16V
C715 100n 16V
C718 100u 16V
+1V8Stb
PL705
F704
+5V
+3V3
Q702
FDC642P
C707 100n
R708 22k
3k3
R786
3k3
R787
3k3
R788
PL706
BKL_ON/OFF
AN/DIG_DIM
S702
ON/OFF
S701
ON/OFF/NOT
+33V
C712 10u 50V
R709 22k
150R 600mA lik ferit
L706
IC704
LM1117
C719 100n 16V
C720 100u 16V
C723 100n 16V
C726 100n 16V
C728 100u 16V
+1V8
ON/OFF
R707 10k
Q701
BC848B
V_PSU
470R
R783
BC858B
Q715
V_GATE
R782 33k
10k
R784
Q718
BC848B
V_DELAY
C3V6
D717
R775 10k
V_PSU
BC858B
Q716
R774 10k
R773 10k
VIN
D719
+5V/+3V3
BAW56
+3V3Stb
D720
+5VStb
BAW56
R781 3k3
47u 16V
C805 100n
R776 10k
PROTECT
S703
Q714
BC848B
R772 1k
C799 100n 16V
R756 10k
BC858B
Q709
R758 10k
R754 10k
+3V3Stb
D721
+8V
BAW56
+5V
D722
+3V3
BAW56
Va
V_DELAY
Q719
BC848B
R779 10k
Q717
BC858B
D716
1N4148
C804 100u 16V
R777 1k
S704
R778 10k
Q721
BC848B
V_PSU
V_PSU
R798 10k
D725
1N4148
MECH_SW
Q720
BC858B
V_PSU
10k
R789
R791 100R
Q722
BC848B
R790 1k
C806 16V 10u
L712
150R 600mA lik ferit
L741
LM317
IC706
ADJ
+8V
16V 100u
C733 C735 100n 16V
C737 100u 16V
C740 220u 25V
R713 220R
C743 16V 100u
C746 100n
R714 680R
R716 1R
+5VStb
Q710
FDC642P
L748 22u
+5V
R749
R762 10k
C800 100n
R763 10k
C801 100n
L742
ON/OFF
R764 33k
Q711
BC848B
R765 33k
L721
L724
L727
L728
Va
C757 100n 50V
+3V3Stb ON/OFF/NOT
24V Adapter 12V VPS Oprtion
IC713
MP1593-DC/DC
BS
IN
SW
GND
SS
EN
COMP
FB
Optional NC
R731 47R
C778 2n2 1kV
C762 100n
C766 470u
C768 10u
C771 10n
C774 100n
C784 50V 100n
R748 1k
R739 22k
R741 10k
BC848B
Q706
R737 10k
C792 3n3 50V
R734 24k7
R735 82k
86K
R743 10k
C794 10n 50V
Optional NC
L733
10u
L734
22uH_3.9A_SMD
L739
L740
C786 22u 16V
C788 22u 16V
C790 470u 16V
Optional NC
Optional NC
R729 10k
IC711
SS33
Optional NC
C775 470p 50V
L715
+8V
L743
Va
L716
+5V
R717 22R
S705
L751 150uH
L717 150u
S706
L750 150uH
L720 150u
C760 100n 25V
C762 100n 25V
D701
1N4148
BC337
Q704
C764 820p 50V
R721 4k7
C765 4n7 50V
C753 33n 50V
D703
BAV99
C758 33u 50V
R722 47R
C759 3u3 50V
+33V
IC709
C33
D700
1N4148
R724 will be 15k ohm for 3.3V output.
C769 will be 8.2 nF for 3.3V output.
R727 will be 5.6k ohm for 3.3V output.
IC708
MP1593-DC/DC
BS
IN
SW
GND
SS
EN
COMP
FB
Optional NC
R720 47R
C752 2n2 1kV
C769 50V 100n
1k
Optional NC
C780 10n
R727 7k5
C769 10n
10k
R726
R723 22k
R724 30k
L713
VIN
L714
C731 100n 50V
C738 100n 50V
C742 470u 35V
C744
10u 50V
C747 10u 50V
C748 100n 50V
Optional NC
L722
10u
L723
22uH_3.9A_SMD
Optional NC
R719 10R
IC707
SS33
Optional NC
C749 470p 50V
L730
L744
L731
F708
SMD JUMPER OPTION
C761 22u 16V
C764 22u 16V
C776 22u 16V
C779 22u 16V
C781 100n 50V
C782 470u 16V
Optional NC
+5V/+3V3
+3V3Stb
ON/OFF/NOT
R746 10k
S2
PL703
S1
R744 4k7
Q707
BC848C
ON/OFF
R745 10k
FROM 700

VESTEL ELECTRONICS	
17MB24H POWER 4of5	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR



VESTEL ELECTRONICS	
17MB24H AUDIO 5of5	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

IC600

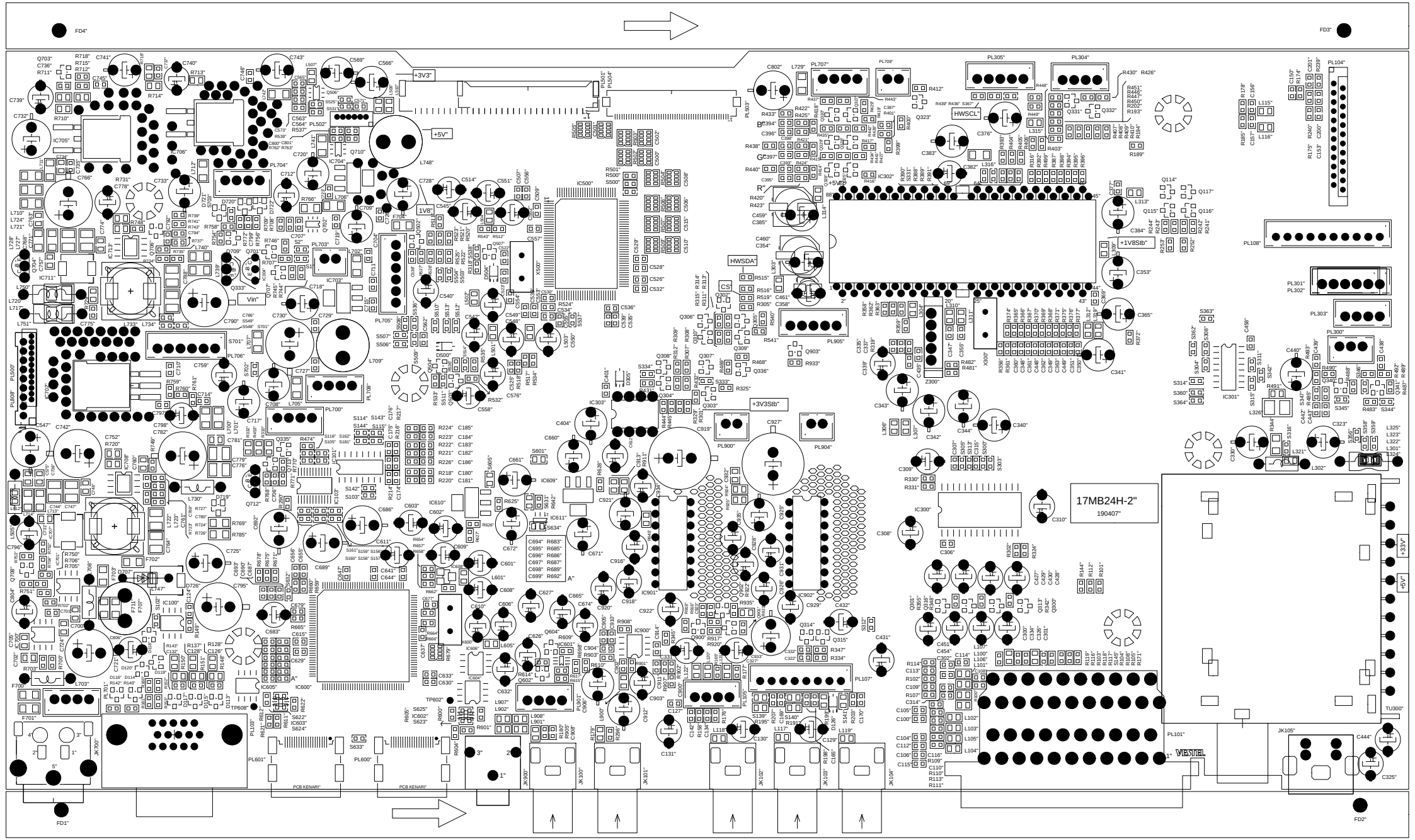
HDMI CONNECTOR 1

HDMI CONNECTOR 0

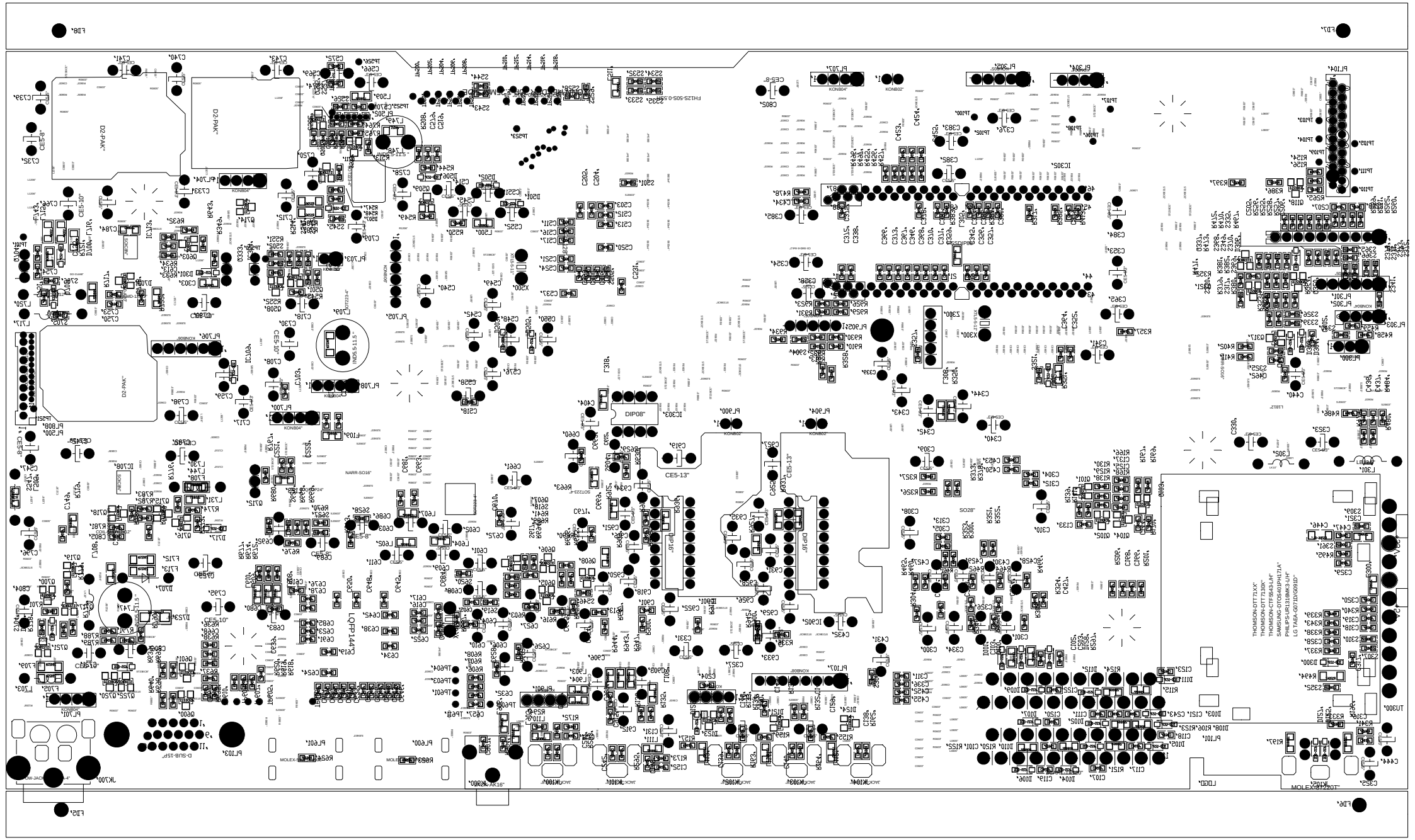
VESTEL ELECTRONICS	
17MB24H HDMI 6of6	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU MELIH CINAR / METEHAN ALTUNUZ

IC100
ST24LC21
NC1
NC2
NC3
VSS
VCC
VCLK
SCL
SDA
R149 3k3
R152 3k3
R160 3k3
16V 100n C124
BAV70
D119
+5V
D118 BAV99
D120
BAV99
S102
R153 220R
R161 220R
PC_VS
PC_HS
D114 BAV99
D116 BAV99
R140 2k2
R142 2k2
VGA CONNECTOR
PL103
C126 12p
R128 75R
C128 12p
R137 75R
C132 12p
R143 75R
R150 100R
R151 100R
R148 100R
VGA_B
VGA_G
VGA_R
D113 BAV99
D115 BAV99
D117 BAV99
IC103
PI5V512
S
IA0
GND_1
IA1
YA
IB0
GND_2
IB1
YB
IC0
IC1
GND_3
VCC
EN
IE0
GND_6
IE1
YE
ID0
GND_5
ID1
YD
GND_4
YC
R290 100R
HDMI_SW
HDMI_PB
S160
VGA_B
S161
BAIN1
HDMI_V
S158
VGA_G
S159
GAIN1
HDMI_PB
VGA_R
S156
S157
SW GROUND
L123 BLM21A601S
C222 100n 16V
C221 100n 16V
HDMI_VS
S105
PC_VS
S116
SW_VS
HDMI_HS
S181
PC_HS
S162
SW_HS
RAIN1
IC101
PI5V330_SOIC
VGA_YPbPR_Sw
RAIN2
S142
PR
S103
GAIN1
S144
Y
S114
GAIN2
BAIN1
S143
PB
S115
BAIN2
16V 100n C149
16V 100n C145
FERIT_SMD L109
+5V
RAIN2
R220 47R
C181 47n
RAIN
10p C174
R214 75R
NC
R218 47R
C180 47n
RAIN-
SW GROUND
GAIN2
470R R226
C186 1n
SOY
R221 47R
C182 47n
GAIN
10p C175
R216 75R
R222 47R
C183 47n
GAIN-
BAIN2
R223 47R
C184 47n
BAIN
10p C176
R217 75R
R224 47R
C185 47n
BAIN-
DVB CONNECTOR
PL104
DVB_IN_R
DVB_IN_G_Y
DVB_IN_B_C
DVB_IN_CVBS
DVB_L_IN
DVB_R_IN
R239 75R
C201
R174 75R
C150
R240 75R
C200
R175 75R
C153
R178 10k
C156 4n7
L115
L116
R185 10k
4n7 C157
TP100
TP101
TP102
TP103
AGC_DVB
SILENCE
MUTEPOR
RXD
TXD
IRQ
SDA_DVB
SCL_DVB
TP104
TP105
TP106
TP107
TP108
TP111
TP109
TP110
R193 4k7
R194 100R
VGA_YPbPR_SW
R189 4k7
R202 4k7
R154 4k7
R156 4k7
PR
Y
PB
L108 FERIT_SMD
C127 100n 16V
R131 33k
R132 33k
R135 33k
R133 33k
R136 33k
R134 33k
C129 4u7 50V
C131 4u7 50V
C130 4u7 50V
R155 47R
R157 47R
R159 47R
75R R162
C138 10p 25V
75R R163
C139 10p 25V
75R R164
C140 10p 25V
16V 100n C141
D121 BAV99
16V 100n C143
D123 BAV99
D122 1N4148
16V 100n C146
D124 BAV99
L112 BLM21A601S
L113 BLM21A601S
L114 BLM21A601S
PR1
Y1
PB1
DVD CONNECTOR
SIDE A/V CONNECTOR
DVD_SENSE
DVD_L_IN
DVD_R_IN
DVD_Y
DVD_C
IR
DVD_IR_ON/OFF
C205 4u7 50V
10k R256
R255 10k
C206 4u7 50V
R257 10k
R258 10k
C207 100p 25V
R259 75R
R261 100R
C208 100p 25V
R262 100R
R260 75R
Q118 BC848B
10k R265
+3V3
PL108
1
2
3
4
5
6
7
8
9
10
PL107
SVHS
SVHS_C
SVHS_Y
JK104
JK105
JK103
JK102
PR1
PB1
Y1
L119
S141
R203 100R
CVBS_IN
75R R199
D126
C170 100p 50V
C168 100p 50V
D127
R197 75R
R196 75R
D125
C166 100p 50V
R206 100R
R201 100R
L117
S140
R191 10k
FAVINR
R198 10k
C165 50V
R207 10k
R195 10k
C169 50V
FAVINL
L118
S139
PL101
SC2_V_IN
SC2_V_OUT
SC2-C
SC2_L_IN
SC2_L_OUT
SC2_R_IN
SC2_R_OUT
AV2_STATUS
R112 100R
R108 100R
R118 100R
R115 75R
D111
C123 150p
D103
C121 150p
C111 27p
D112
R124 75R
D109
C122 100n
R100 10k
50V 4n7 C108
L100 BLM21A601S
R110 680R
C100 150p 50V
50V 4n7 C110
L103 BLM21A601S
R114 10k
50V 4n7 C114
L107 BLM21A601S
R109 680R
C105 150p 50V
C116 4n7 50V
L102 BLM21A601S
R106 75R
D108
150p C118
R101 100R
SC1_V_IN
SC1_V_OUT
C117 150p
D105
R123 75R
D102
C243 100n
100R R105
SC1-IN-FB
R121 75R
D110
C107 27p
100R R104
SC1-R
C203 10n
D128
10k R297
S145
CTI_PROG_EN
R117 75R
Tx-Clock
C102 2n2
D100
100n C102
100R R103
SC1-G
R120 75R
D104
C101 27p
C120 100n
D107
AV1_STATUS
R116 75R
Rx-Data
C103 2n2
D101
100n C103
R119 100R
SC1-B
R122 75R
D106
C119 27p
BLM21A601S L105
R113 680R
SC1_L_OUT
C112 4n7
C104 150p
BLM21A601S L104
R111 680R
SC1_R_OUT
C115 4n7
C106 150p
L101
SC1_R_IN
C109 4n7
10k R107
L106
SC1_L_IN
C113 4n7
10k R102
FROM 100
VESTEL ELECTRONICS
17MB24H I/O INT. 1of5
Date
17.10.2006
Author
GORKEM KOCAGOZOGLU
ISMAIL YILMAZLAR
HWSDA
HWSCL
VCTI_PROG_EN
10k R243
R244 10k
10k R241
R242 10k
Q115 BC848B
Q114 BC848B
Q116 BC848B
Q117 BC848B
+5V
10k R253
Rx-Data
10k R252
Tx-Clock
+8V
C137 100n 16V
R166 27k
R168 470R
BC858B Q104
IF_CVBS_OUT
Q103 BC848B
R167 10k
R170 910R
R171 75R
SC1_V_OUT
R169 820R
C144 47p 50V
C125 100n 16V
R129 27k
R138 470R
BC858B Q102
SC2_OUT
Q101 BC848B
R130 10k
R141 910R
R144 75R
SC2_V_OUT
R139 820R
C133 47p 50V
1n C142
10k R158
SVHS_L_IN
LINE_OUT_L
R155
1n C134
10k R176
SVHS_R_IN
10k R177
LINE_OUT_R
L121
subw.
L122
C204 10p
PL105
1
2
3
4
1n C241
10k R293
SVHS_L_IN
10k R294
PCIL
10k R180
JK100
L110
C147 1n 50V
C151 150p 50V
680R R172
LINE_OUT_L
1n C242
10k R295
SVHS_R_IN
10k R296
PCIR
10k R179
JK101
L111
R173 680R
C148 1n 50V
C152 150p 50V
LINE_OUT_R

àJ$


FD4"
FD3"
FD1"
FD2"
+3V3"
+5V"
1V8"
Vin"
HWSCL"
HWSDA"
+1V8Stb"
+3V3Stb"
17MB24H-2"
190407"
PCB KENARI"
PCB KENARI"
VESTEL

ØH$


D2-PAK"
NARR-SO16"
SO28"
DIP08"
DIP16"
CE5-13"
CE5-10"
KONB04"
KONB02"
KONB05"
KONB06"
MOLEX-47220T"
D-SUB-15F"
THOMSON-DTT7130X"
THOMSON-CTF5843-LM"
PHILIPS-FQ1216ME/I3-TDA"
LG TAEA-G071D/G091D"

IC100
ST24LC21
NC1
NC2
NC3
VSS
VCC
VCLK
SCL
SDA
R149 3k3
R152 3k3
R160 3k3
BAV70
D119
+5V
16V 100n C124
D118 BAV99
D120
BAV99
S102
R153 220R
R161 220R
IC103
PI5V512
HDMI_SW R290 100R
HDMI_PB S160
VGA_B S161
BAIN1
HDMI_Y S158
VGA_G S159
GAIN1
HDMI_PB
VGA_R S156
S157
S1 GND_1 IA0 IA1 YA IB0 GND_2 IB1 YB IC0 IC1 GND_3
SW GROUND
VCC EN IE0 GND_6 IE1 YE ID0 GND_5 ID1 YD GND_4 YC
L123 BLM21A601S
C222 100n 16V
C221 100n 16V
HDMI_VS S105
PC_VS S116
SW_VS
HDMI_HS S181
PC_HS S162
SW_HS
RAIN1
IC101
PI5V330_SOIC
VGA_YPbPR_Sw
RAIN1 S142
PR S103
RAIN2
A B C D E F G H
R O N M L K J I
16V 100n C149
16V 100n C145
FERIT_SMD L109
+5V
GAIN1 S144
Y S114
GAIN2
BAIN1 S143
PB S115
BAIN2
VGA CONNECTOR
PL103
PC_VS
PC_HS
BAV99 D114
BAV99 D116
242 R140
242 R142
C126 12p
R128 75R
C128 12p
R137 75R
C132 12p
R143 75R
R150 100R VGA_B
R151 100R VGA_G
R148 100R VGA_R
D113 BAV99
D115 BAV99
D117 BAV99
PL101
R106 75R
D108 150p
C118
R101 100R SC1_V_IN
SC1_V_OUT
C117 150p
D105
R115 75R
D111
C123 150p
SC2_V_IN R112 100R
SC2_V_OUT
D103 C121 150p
C111 27p
D112
R124 75R
SC2-C R108 100R
R123 75R
D102
C243 100n
100R R105 SC1-IN-FB
R121 75R
D110
C107 27p
100R R104 SC1-R
D109
C122 100n
AV2_STATUS R118 100R
SC2_L_IN
L100 BLM21A601S
R100 10k
C108 50V 4n7
SC2_L_OUT
R110 680R
L103 BLM21A601S
C100 150p 50V
C110 50V 4n7
SC2_R_IN
L107 BLM21A601S
R114 10k
C114 50V 4n7
SC2_R_OUT
R109 680R
L102 BLM21A601S
C105 150p 50V
C116 4n7 50V
R120 75R
D104
C101 27p
100R R103 SC1-G
C102 100n
D100
R116 75R
Rx-Data
C103 100n
D101
C120 100n
AV1_STATUS
D107
R122 75R
D106
C119 27p
R119 100R SC1-B
BLM21A601S L105
R113 680R SC1_L_OUT
C112 4n7
C104 150p
BLM21A601S L104
R111 680R SC1_R_OUT
C115 4n7
C106 150p
L101
SC1_R_IN
C109 4n7
10k R107
L106
SC1_L_IN
C113 4n7
10k R102
D128
R297 10k
C204 100n
S145
VCTI_PROG_EN
Tx-Clock
PR
Y
PB
L108 FERIT_SMD
+5V
C127 100n 16V
R131 33k
R132 33k
R135 33k
R133 33k
R136 33k
R134 33k
C129 4u7 50V
C131 4u7 50V
C130 4u7 50V
R155 47R
R157 47R
R159 47R
75R R162 C138 10p 25V
75R R163 C139 10p 25V
75R R164 C140 10p 25V
16V 100n C141
D121 BAV99
16V 100n C143
D123 BAV99
D122 1N4148
16V 100n C146
D124 BAV99
L112 BLM21A601S
L113 BLM21A601S
L114 BLM21A601S
PR1
Y1
PB1
RAIN2
R220 47R C181 47n RAIN
10p C174
R214 75R NC
R218 47R C180 47n RAIN-
SW GROUND
GAIN2
R226 470R C186 1n SOY
R221 47R C182 47n GAIN
10p C175
R216 75R NC
R222 47R C183 47n GAIN-
BAIN2
R223 47R C184 47n BAIN
10p C176
R217 75R NC
R224 47R C185 47n BAIN-
DVB CONNECTOR
PL104
DVB_IN_R
R239 75R
C201
R174 75R
C150
DVB_IN_G_Y
R240 75R
C200
DVB_IN_B_C
R175 75R
C153
DVB_IN_CVBS
R178 10k
C156 4n7
DVB_L_IN
DVB_R_IN
L115
L116
10k R185
4n7 C157
AGC_DVB
+3V3
R193 4k7
SILENCE
R189 4k7
VGA_YPbPR_SW
R194 100R
MUTEPOR
R202 4k7
RXD
TXD
IRQ
R154 4k7
SDA_DVB
SCL_DVB
R156 4k7
TP100 TP101 TP112 TP113 TP114 TP115 TP103 TP117 TP119 TP104 TP105 TP106 TP120 TP107 TP108 TP111 TP122 TP109 TP110
DVD CONNECTOR
DVD_SENSE
DVD_L_IN
C205 50V 4n7
10k R256
R255 10k
DVD_R_IN
C206 4n7
R257 10k
R258 10k
DVD_Y
C207 25V 100p
R259 75R
R261 100R
DVD_C
C208 25V 100p
R262 75R
R260
IR
Q118 BC848B
R265 10k
DVD_IR_ON/OFF
+3V3
PL108
HWSDA
HWSCL
10k R243
R244 10k
10k R241
R242 10k
Q115 BC848B
Q114 BC848B
Q116 BC848B
Q117 BC848B
+5V
10k R253
Rx-Data
10k R252
Tx-Clock
VCTI_PROG_EN
+8V
C137 100n 16V
R166 27k
R168 470R
BC858B Q104
IF_CVBS_OUT
Q103 BC848B
R167 10k
R170 910R
R171 75R
SC1_V_OUT
R169 820R
C144 47p 50V
C125 100n 16V
R137 27k
R138 470R
BC858B Q102
SC2_OUT
Q101 BC848B
R139 10k
R141 910R
R144 75R
SC2_V_OUT
R140 820R
C133 47p 50V
SIDE A/V CONNECTOR
PL107
JK104
L119
S141
R203 100R
CVBS_IN
75R R199 D126
C170 100p 50V
PR1
JK105
SVHS
SVHS_C
R206 100R
D127
R197 75R
R196 75R
D125
C166 100p 50V
SVHS_Y
R201 100R
D129 75R
R125
D130 75R
R126
JK103
L117
S140
PB1
R191 10k
FAVINR
R198 10k
C165 50V
R207 10k
C169 50V
R195 10k
FAVINL
Y1
JK102
L118
S139
SVHS_L_IN
R293 10k
R294 10k
PCIL
R180 10k
JK100
L110
C147 1n 50V
C151 150p 50V
680R R172
LINE_OUT_L
SVHS_R_IN
R295 10k
R296 10k
PCIR
R179 10k
JK101
L111
R173 680R
C148 1n 50V
C152 150p 50V
LINE_OUT_R
C241 1n
C242 1n
SVHS_R_IN
R176 10k
R177 10k
LINE_OUT_R
L121
PL105
C142 1n
R158 10k
SVHS_L_IN
R156 10k
LINE_OUT_L
subw.
L122
C204 10p
FROM 100
VESTEL ELECTRONICS
17MB24H I/O INT. 1of5
Date 17.10.2006
Author GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

TECH2949PG40B

TU300

IFAGC

IF1 IF2 VST NC/ADC VS NC SDA SCL AS TU AGC

ANIF

SDA_SW SCL_SW

GND_TUNER

IF2

+8VIF

AGC_SW

optional PTC S316

IF1

AGC_TV

IDTV IF GON.

IC302

VCT4932

GND1 VSUP8.0AU VREFAU SPEAKERL SPEAKERR SWITCH_SOUND_L SWITCH_SOUND_R HP_L HP_R AIN3L/AOUT2L AIN3R/AOUT2R AIN2L AIN2R AIN1L SIF/AIN1R TAGC VREFIF IFIN- IFIN+ RESETQ GNDIF VSUP5.0IF VSUP3.3DIG GND2 GND3 VSUP1.8DIG XTAL1 XTAL2 P22 P23 VIN11 VIN10 VIN9 VIN8 VIN7 VIN6 VIN5 VIN4 VIN3 VIN2 VIN1 VOUT1 VOUT2 VOUT3 VSUP1.8FE GND4

MAIN_L MAIN_R

20.25MHz

GND8 VSUP5.0BE TEST VERT+ VERT- EW RSW2 RSW1 SENSE GNDM FBIN RIN GIN BIN SVMOUT ROUT GOUT BOUT VRD XREF VSUP3.BE GND7 GND6 VSUP3.IO VSUP3.3DAC GNDDAC SAFETY HFLB HOUT VPROT SDA SCL P21/PWMV P20/DFVBL P17 P16 P15 P14 P13 P12 P11 P10 VSUP3.FE GND5

subw.

DVD_SENSE DVB_IN_R DVB_IN_G_Y DVB_IN_B_C

TV/DVB_SW

REDO GREENO BLUEO

KEYPAD PL303

KEY

IC300

TEA6422D

GND CAPACITANCE VS L1 L2 L3 NC NC1 L4 L5 L6 LOUT1 ROUT1 LOUT2 ROUT2 SDA SCL ADDR R1 R2 R3 NC3 NC2 R4 R5 R6 ROUT3 LOUT3 LOUT2 ROUT2

HDMI_L_IN FAVINL SWITCH_SOUND_L HDMI_R_IN FAVINR SWITCH_SOUND_R SWAUD_OUT_L SC1_L_IN DVD_L_IN SC2_L_IN SVHS_L_IN DVB_L_IN SVHS_L_IN SWAUD_OUT_L SWAUD_OUT_R SWAUD_OUT_R SC1_R_IN DVD_R_IN SC2_R_IN SVHS_R_IN DVB_R_IN SVHS_R_IN

IC303 24LC32A

A0 A1 A2 VSS VCC WP SCL SDA

SCLNVM SDANVM

IC301 74HCT4053

2Y1 2Y0 3Y1 3Z 3Y0 E VEE GND VCC 2Z 1Z 1Y1 1Y0 S1 S2 S3

SCL_DVB SCL IFAGC AGC_DVB AGC_SW AGC_TV SCL_SW SDA_SW SDA_DVB SDA TV/DVB_SW

IC304 BL05_TO92

PL301 PL302

MECH_SW IR

PL305 FOR FLASH PROG.AND VCTI DEBUG

KEY IWSDA IWSCL

PL304 FOR MSTAR DEBUG

RXD TXD

IC305 LM809

X6966M

ON/OFF TV/DVB_SW SILENCE

HWSDA HWSCL HDMI_HP_INV VCTI_CABLE1_DET CS POWCON AV2_STATUS DVD_IR_ON/OFF AV1_STATUS KEY INT MUTEPORT TXD RXD GA_YPbPR_Sw VCTI_HS IR IRQ MST_RESET PROTECT

+3V3 +5V +8V +1V8Stb +3V3Stb +5VStb +8VIF +8V +5VA

IC500
MST517A-M

VESTEL ELECTRONICS	
17MB24H VCTI 3of5	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

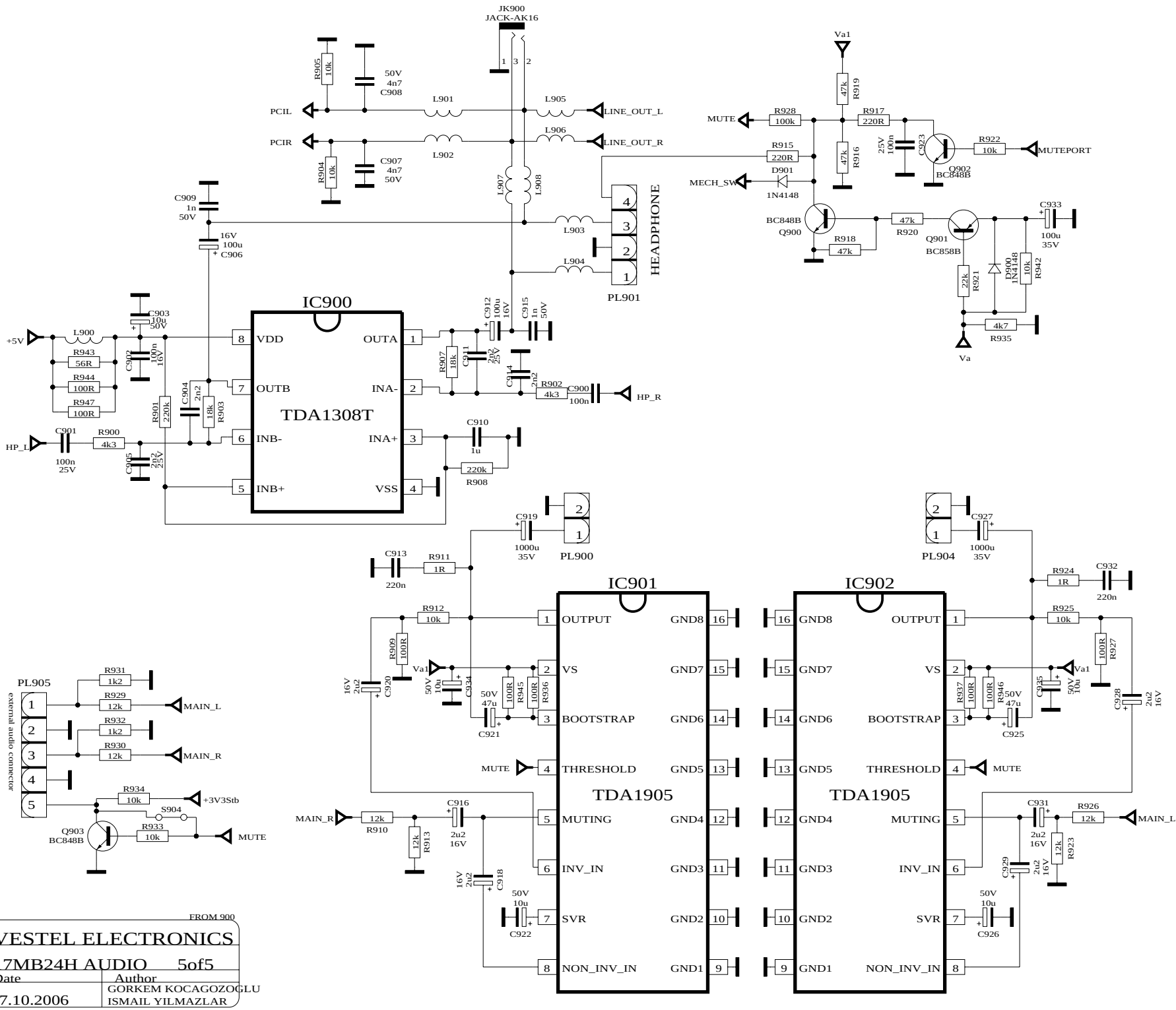
DC_POWER_SOCKET_20V/7.5A
JK700
PL701
F701
ADAPTER/SMPS OPTIONS=FUSE SAFE SMD 1206 7A/32VDC
LIPS OPTION=JUMPER SMD 1206
SMD JUMPER OPTIONS
F709
F705
L703
F700
LIPS/ADAPTER:OPTIONS=FUSE SAFE SMD 1206 4A/32VDC
SMPS OPTION=FUSE SAFE SMD 1206 5A/32VDC
L725
L726
INV
V_PSU
C705 100n 50V
IC700
IRF7314
S1 G1 S2 G2 D1A D1 D2A D2
C702 100n 50V
R703 22k
MECH_SW
22k
R700
V_GATE
C721 470u 35V
C724 100n 50V
F711
F707
22u
L747
L708
VIN
V_PSU
R783 470R
BC858B Q715
V_GATE
R782 33k
R784 10k
Q718 BC848B
V_DELAY
R781 3k3
C765 470n 16V
R776 10k
BC858B Q716
R774 10k
R773 10k
C3V6
D717
R775 10k
D719
VIN
+5V/+3V3
BAW56
D720
+3V3Stb
+5VStb
V_DELAY
Q719 BC848B
R779 10k
Q717 BC858B
D716 1N4148
C804 100u 16V
R777 1k
S704
R778 10k
Q721 BC848B
V_PSU
MECH_SW
R798 10k
D725 1N4148
R789 10k
R791 100R
Q722 BC848B
R790 1k
C806 100u 16V
Q720 BC858B
150R 600mA lik ferit
L710
Va
LM317 IC705
ADJ
C732 100u 35V
C734 100n 50V
C741 100u 16V
C745 100n 16V
+8V
R710 910R
220R
C736 100u 16V
C739 22u 50V
R711 470R
BC848C Q703
R718 10k
ON/OFF/NOT
R712 47R
R715 10k
L711
150R 600mA lik ferit
PROTECT
S703
Q714 BC848B
R772 1k
C739 100n 16V
R756 10k
BC858B Q709
R758 10k
R754 10k
+3V3Stb
D721
+8V
+5V
BAW56
D722
+3V3
Va
BAW56
DVD power connector
IDTV power connector
PL709
PL707
C802 100u 35V
L729
F702
Va
INV
L719
D707
1N4007
D723
1N4001
D726
SS33
F703
C722 100u 50V
C725 100u 35V
C795 470u 35V
Va1
IC701
IRF7314
S1 G1 S2 G2 D1A D1 D2A D2
VIN
C700 100n 50V
C701 100n
R702 22k
C716 100n
R750 22k
R705 100R
R706 100R
R701 1k
R704 10k
ON/OFF
Q700 BC848B
C713 22u 50V
R752 75k
ON/OFF
Q708 BC848B
C796 22u 50V
R753 75k
R751 22k
Q712 BC558B
R785 3k3
R769 3k3
R767 4k7
R768 33k
Q713 BC848B
ON/OFF
R770 33k
R771 33k
C706 100n 25V
PL700
150R 600mA lik ferit
L705
L707
PL708
L709 22u
F714
C727 100n 16V
C729 100n 16V
C730 470u 16V
VPS Panel Supply +12V/+5V/+3V3
+VPS
+5V/+3V3
150R 600mA lik ferit
L701
fix output kullanilacak
LM1086 IC702
VIN OUT GND
+3V3Stb
C703 100n 16V
C708 100u 16V
C710 100n 16V
C714 100n 16V
C717 100u 16V
C707 100n 16V
C790 100n 16V
22n
R759 220R
R760 390R
1R
R761
150R 600mA lik ferit
L700
PL704
+5VStb
+3V3Stb
100R
R792
150R 600mA lik ferit
L702
IC703
LM1117
VIN OUT GND
+1V8Stb
C704 100n 16V
C709 100u 16V
C711 100n 16V
C715 100n 16V
C718 100u 16V
PL705
F704
+5V
+3V3
Q702
FDC642P
+3V3
C707 100n
R708 22k
R766 3k3
R784 3k3
R787 3k3
R786 3k3
R709 22k
C712 10u 50V
150R 600mA lik ferit
L706
IC704
LM1117
VIN OUT GND
+1V8
C719 100n 16V
C720 100u 16V
C723 100n 16V
C726 100n 16V
C728 100u 16V
PL706
BKL_ON/OFF
AN/DIG_DIM
S702
S701
ON/OFF
ON/OFF/NOT
+33V
ON/OFF
R707 10k
Q701 BC848B
L712
150R 600mA lik ferit
L741
LM317 IC706
ADJ
+8V
C733 100u 16V
C735 100n 16V
C737 100u 16V
C740 22u 50V
R713 220R
C743 100u 16V
C746 100n 16V
R714 680R
R716 1R
+5VStb
Q710 FDC642P
L748 22u
L749
+5V
R762 10k
C800 100n
R763 10k
C801 100n
ON/OFF
R764 33k
Q711 BC848B
R765 33k
L742
L721
L724
VIN
L704
L716
L727
L728
Va
C757 100n 50V
Optional NC
C760 100u 16V
C766 470u 16V
C768 10u 16V
C771 10u
C774 100n
R731 47R
C778 2n2 2kV
24V Adapter 12V VPS Oprtion
IC713
MP1593-DC/DC
BS IN SW GND SS EN COMP FB
C784 50V 100n
R748 1k
R739 22k
R741 10k
BC848B Q706
+3V3Stb ON/OFF/NOT
R737 10k
C792 363 50V
C794 10n 50V
Optional NC
R734 24k7
86K R735 82k
R743 10k
L739
L740
C786 22u 16V
C788 22u 16V
C790 470u 16V
Optional NC
L733 10u
L734 22uH_3.9A_SMD
Optional NC
R729 10R
IC711 SS33
Optional NC
C775 470p 50V
PL702
L715
+8V
L743
Va
L716
+5V
R717 22R
S705
L751 150uH
L717 150u
S706
L750 150uH
L720 150u
C750 100n 25V
C751 470u 16V
D701 1N4148
BC337 Q704
C754 820p 50V
R721 4k7
C755 4n7 50V
C753 33n 50V
D703 BAV99
R722 47R
C758 33u 50V
C759 3u3 50V
+33V
IC709 LE33
D700 1N4148
R724 will be 15k ohm for 3.3V output.
C769 will be 8.2 nF for 3.3V output.
R727 will be 5.6k ohm for 3.3V output.
VIN
L713
L714
C731 100n 50V
C738 100n 50V
C742 470u 35V
C744
C747 10u 50V
C749 10u 50V
C748 100n 50V
IC708
MP1593-DC/DC
BS IN SW GND SS EN COMP FB
R720 47R
C752 22n 50V
C767 100n 50V
C769 1k
Optional NC
C780 10n
R727 7k5
C769 10n
R726 10k
R723 2k
R724 30k
Optional NC
L722 10u
L723 22uH_3.9A_SMD
Optional NC
R719 10R
IC707 SS33
Optional NC
C749 470p 50V
L730
L744
L731
F708
SMD JUMPER OPTION
C761 22u 16V
C764 22u 16V
C776 22u 16V
C779 22u 16V
C781 100n 50V
C782 470u 16V
+5V/+3V3
Optional NC
+3V3Stb
R746 10k
ON/OFF/NOT
S2
S1
PL703
R744 4k7
Q707 BC848C
ON/OFF
R745 10k

EPROM 700

VESTEL ELECTRONICS

17MB24H POWER 4of5

Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR



FROM 900

VESTEL ELECTRONICS	
17MB24H AUDIO 5of5	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

IC600

HDMI CONNECTOR 1

HDMI CONNECTOR 0

VESTEL ELECTRONICS	
17MB24H HDMI 6of6	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU MELIH CINAR / METEHAN ALTUNUZ

IC100
ST24LC21
NC1
NC2
NC3
VSS
VCC
VCLK
SCL
SDA
R149 3k3
R152 3k3
R160 3k3
BAV70
D119
+5V
16V 100n C124
D118 BAV99
D120
BAV99
S102
R153 220R
R161 220R
IC103
PI5V512
HDMI_SW R290 100R
HDMI_PB S160
VGA_B S161
BAIN1
HDMI_Y S158
VGA_G S159
GAIN1
HDMI_PB
VGA_R S156
S157
S1 GND_1 IA0 IA1 YA IB0 GND_2 IB1 YB IC0 IC1 GND_3
SW GROUND
VCC EN IE0 GND_6 IE1 YE ID0 GND_5 ID1 YD GND_4 YC
L123 BLM21A601S
C222 100n 16V
C221 100n 16V
HDMI_VS S105
PC_VS S116
SW_VS
HDMI_HS S181
PC_HS S162
SW_HS
RAIN1
IC101
PI5V330_SOIC
VGA_YPbPR_Sw
RAIN1 S142
PR S103
RAIN2
A B C D E F G H
R O N M L K J I
16V 100n C149
16V 100n C145
FERIT_SMD L109
+5V
GAIN1 S144
Y S114
GAIN2
BAIN1 S143
PB S115
BAIN2
VGA CONNECTOR
PL103
PC_VS
PC_HS
BAV99 D114
BAV99 D116
242 R140
242 R142
C126 12p
R128 75R
C128 12p
R137 75R
C132 12p
R143 75R
R150 100R VGA_B
R151 100R VGA_G
R148 100R VGA_R
D113 BAV99
D115 BAV99
D117 BAV99
PL101
R106 75R
D108 150p
C118
R101 100R SC1_V_IN
SC1_V_OUT
C117 150p
D105
R115 75R
D111
C123 150p
SC2_V_IN R112 100R
SC2_V_OUT
D103 C121 150p
C111 27p
D112
R124 75R
SC2-C R108 100R
R123 75R
D102
C243 100n
100R R105 SC1-IN-FB
R121 75R
D110
C107 27p
100R R104 SC1-R
D109
C122 100n
AV2_STATUS R118 100R
SC2_L_IN
L100 BLM21A601S
R100 10k
C108 50V 4n7
SC2_L_OUT
R110 680R
L103 BLM21A601S
C100 150p 50V
C110 50V 4n7
SC2_R_IN
L107 BLM21A601S
R114 10k
C114 50V 4n7
SC2_R_OUT
R109 680R
L102 BLM21A601S
C105 150p 50V
C116 4n7 50V
R120 75R
D104
C101 27p
100R R103 SC1-G
C102 100n
D100
R116 75R
Rx-Data
C103 100n
D101
C120 100n
AV1_STATUS
D107
R122 75R
D106
C119 27p
R119 100R SC1-B
BLM21A601S L105
R113 680R SC1_L_OUT
C112 4n7
C104 150p
BLM21A601S L104
R111 680R SC1_R_OUT
C115 4n7
C106 150p
L101
SC1_R_IN
C109 4n7
10k R107
L106
SC1_L_IN
C113 4n7
10k R102
D128
R297 10k
C204 100n
S145
VCTI_PROG_EN
Tx-Clock
PR
Y
PB
L108 FERIT_SMD
+5V
C127 100n 16V
R131 33k
R132 33k
R135 33k
R133 33k
R136 33k
R134 33k
C129 4u7 50V
C131 4u7 50V
C130 4u7 50V
R155 47R
R157 47R
R159 47R
75R R162 C138 10p 25V
75R R163 C139 10p 25V
75R R164 C140 10p 25V
16V 100n C141
D121 BAV99
16V 100n C143
D123 BAV99
D122 1N4148
16V 100n C146
D124 BAV99
L112 BLM21A601S
L113 BLM21A601S
L114 BLM21A601S
PR1
Y1
PB1
RAIN2
R220 47R C181 47n RAIN
10p C174
R214 75R NC
R218 47R C180 47n RAIN-
SW GROUND
GAIN2
R226 470R C186 1n SOY
R221 47R C182 47n GAIN
10p C175
R216 75R NC
R222 47R C183 47n GAIN-
BAIN2
R223 47R C184 47n BAIN
10p C176
R217 75R NC
R224 47R C185 47n BAIN-
DVB CONNECTOR
PL104
DVB_IN_R
R239 75R
C201
R174 75R
C150
DVB_IN_G_Y
R240 75R
C200
DVB_IN_B_C
R175 75R
C153
DVB_IN_CVBS
R178 10k
C156 4n7
DVB_L_IN
DVB_R_IN
L115
L116
10k R185
4n7 C157
AGC_DVB
+3V3
R193 4k7
SILENCE
R189 4k7
VGA_YPbPR_SW
R194 100R
MUTEPOR
R202 4k7
RXD
TXD
IRQ
R154 4k7
SDA_DVB
SCL_DVB
R156 4k7
TP100 TP101 TP112 TP113 TP114 TP115 TP103 TP117 TP119 TP104 TP105 TP106 TP120 TP107 TP108 TP111 TP122 TP109 TP110
DVD CONNECTOR
DVD_SENSE
DVD_L_IN
C205 50V 4n7
10k R256
R255 10k
DVD_R_IN
C206 4n7
R257 10k
R258 10k
DVD_Y
C207 25V 100p
R259 75R
R261 100R
DVD_C
C208 25V 100p
R262 75R
R260
IR
Q118 BC848B
R265 10k
DVD_IR_ON/OFF
+3V3
PL108
HWSDA
HWSCL
10k R243
R244 10k
10k R241
R242 10k
Q115 BC848B
Q114 BC848B
Q116 BC848B
Q117 BC848B
+5V
10k R253
Rx-Data
10k R252
Tx-Clock
VCTI_PROG_EN
+8V
C137 100n 16V
R166 27k
R168 470R
BC858B Q104
IF_CVBS_OUT
Q103 BC848B
R167 10k
R170 910R
R171 75R
SC1_V_OUT
R169 820R
C144 47p 50V
C125 100n 16V
R137 27k
R138 470R
BC858B Q102
SC2_OUT
Q101 BC848B
R139 10k
R141 910R
R144 75R
SC2_V_OUT
R140 820R
C133 47p 50V
SIDE A/V CONNECTOR
PL107
JK104
L119
S141
R203 100R
CVBS_IN
75R R199 D126
C170 100p 50V
PR1
JK105
SVHS
SVHS_C
R206 100R
D127
R197 75R
R196 75R
D125
C166 100p 50V
SVHS_Y
R201 100R
D129 75R
R125
D130 75R
R126
JK103
L117
S140
PB1
R191 10k
FAVINR
R198 10k
C165 50V
R207 10k
C169 50V
R195 10k
FAVINL
Y1
JK102
L118
S139
SVHS_L_IN
R293 10k
R294 10k
PCIL
R180 10k
JK100
L110
C147 1n 50V
C151 150p 50V
680R R172
LINE_OUT_L
SVHS_R_IN
R295 10k
R296 10k
PCIR
R179 10k
JK101
L111
R173 680R
C148 1n 50V
C152 150p 50V
LINE_OUT_R
C241 1n
C242 1n
SVHS_R_IN
R176 10k
R177 10k
LINE_OUT_R
L121
PL105
C142 1n
R158 10k
SVHS_L_IN
R156 10k
LINE_OUT_L
subw.
L122
C204 10p
FROM 100
VESTEL ELECTRONICS
17MB24H I/O INT. 1of5
Date 17.10.2006
Author GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

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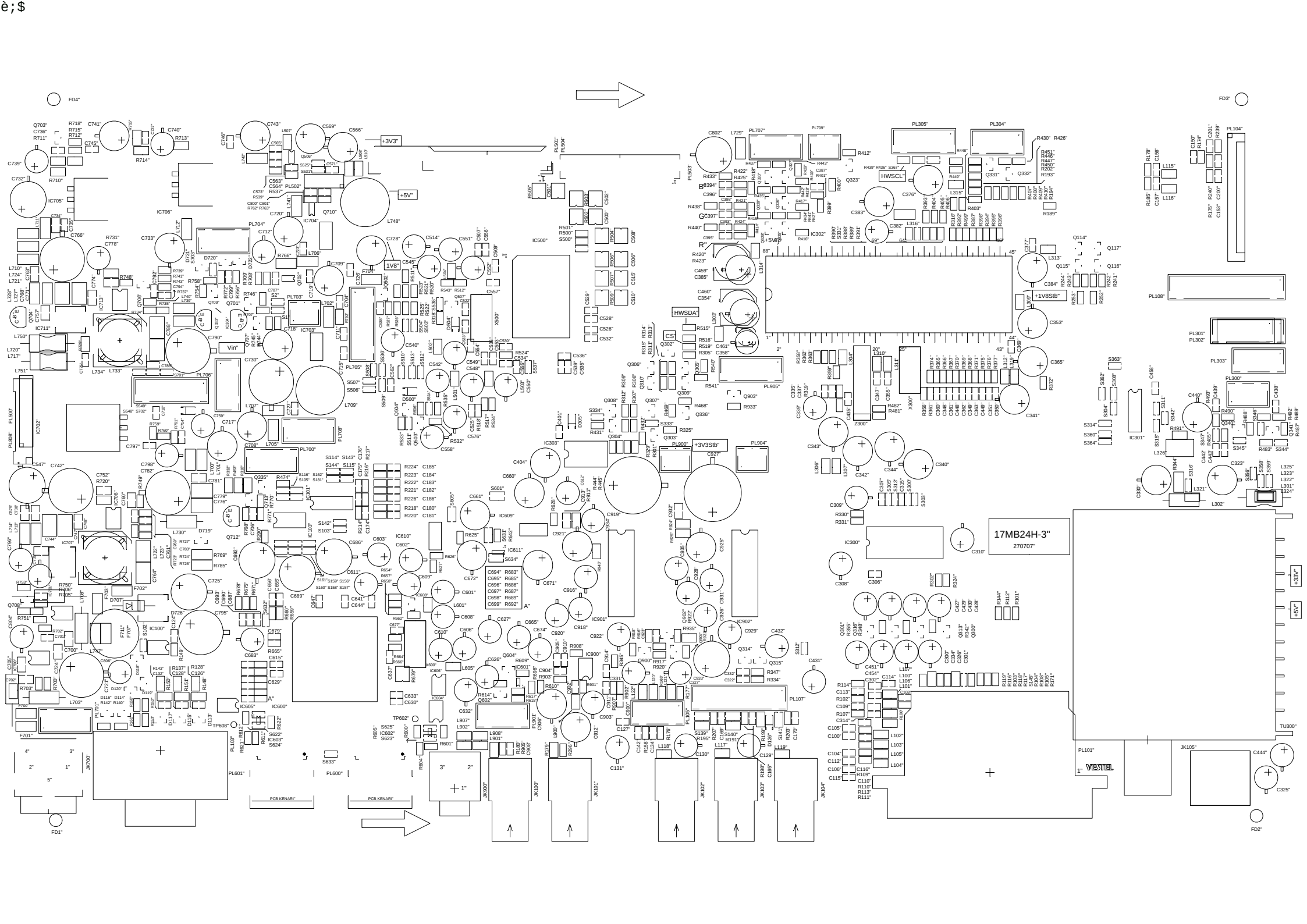
17MB24H-3"
270707"
VESTEL
+3V3"
+5V"
1V8"
+1V8Stb"
+3V3Stb"
HWSCL"
HWSDA"
CS"
Vin"
FD1"
FD2"
FD3"
FD4"
PCB KENARI"
PCB KENARI"

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Component	Description	Pos. Numb
20178360	LENS LED 2832WRF (%10 MILKY)(I)	
20261845	BRACKET BUTTON FUNC.XX755/56 EKO2.GRA(I)	
20264517	POWER CORD ASSY.SAFE(BRI.WAL PLG)-PKG	
20306886	BUTTON FUNCTION TFT XX715(KR.MET.KAP)	
20323836	SPK.AS.TFT 20795/796 (R/L)MB24	
20325611	SNOW BOX ASSY 19795W/796W TFT (R/L)	
20335830	BUTTON ON/OFF TFT XX715(KR.MET.KAP)	
20335860	SCR.ASSY.DIF.KIT 19795/796W (SAM)	
20335866	CABLE AS.DIF.KIT.19"W (MB24H)(SAM)	
20339945	MD.ASY.17HP22-1994/94W K.SÄ°Z (MB24H)	
20342567	CN.ASSY.FFC 24P/400 D TYPE (P=1MM)	
20342705	CHS.ASSY.17MB24H-21141213411111211	
20342717	BACK CVR.19795/96W(TOS(W/CI WO/P)DARK/P	
20342718	BACK CVR.19795/96W(TOS(W/CI WO/P)%1B(IV0	
20342719	BUT.AS.19795 (MISTY SILVER-KROM)	
20342720	BRACKET BUTTON FUNC.XX755/56(MISTY SILV)	
20343358	FRONT TFT19795W WO/H(MI.SL-CO.BL)INT&HDR	
20343550	DVB-T TDM1300 (TOSHIBA/UK) SPDIF	
20349064	SM.DIF.KIT 19795/796W IDTV(SVA)MB24H	
20349108	EXP.DIF.KIT TFT19"W (SVA)	
20349149	CAB.AS.WO/P.19795/796W IDTV/VGA(WO/P)24H	
20349388	LENS IR 21005 H1: 6 H2: 5 SMOKE GRAY (I)	
20350791	MD.ASY.17LD62-19795W TFT (MB24H) ROHS	
20351730	MD.ASY.17TK98S-6SW 19795/96W (MB24H)ROHS	
20352612	FOOT ASSY TFT19795/96W_T(COOL SL/P)	
20352614	FOOT ASSY TFT19795/96W_T(CO.SL-DA.GR)ph	
20352644	BRACKET 16 MB1300 15-20 VER1(DARK)V0(TOS	
20352645	BRACKET 16 MB1300 15-20 VER1(TOS)(I) V0	
20352669	ARTWORK TOSHIBA TOSHIBA 19W330DB	
20352783	COVER HINGE LCD 19795W_T(DARK.GRAY/P)	
20352810	SCR.ASSY.WO/PAN.19795/796W IDTV (MB24H)	
30043009	CNAS 1P/2000 W/DSTRJACK-PKG RoHS	
30045766	CNAS 15P/1500 DSUB UL20276-PKG-ROHS	
30046397	PSU 12VDC 6A C14 4PO W/OPFCSAFE-PKG RoHS	
30050379	CNAS 4P/100 SHL W\DC UL2464 AWG26 RoHS	
30055455	CNAS 30P-30/180LVDS SHL UL20276AWG30RoHS	
30058064	4CCFL INVERTER IVT0405-03 19"W SAFE ROHS	
30058335	TFT LCD 19"W SVA 190WX02TB SAFE RoHS	
35000180	SCREW C ZN YSMB M3*6 ROHS	
35000231	SCREW SK C NI YFMB 2.9*6.5 ROHS	
35008081	SCREW P C ZN YFMB 3*9.5 RoHS	
35008088	SCREW P C ZN YSMB 4*16 RoHS	
35012594	SCREW M 3*8 YFMB TAPTITE (ROHS)	
35012930	HANG METAL TFT2324	
35014231	SCREW C ZN YFMB M4*10	
35017433	SCREW M3*10YP+TP-	

40033725 LOGO TOSHIBA (THIN CUT-SILVER) ROHS
50018337 NYLON SHIELD 59*90 (15+15) HDPE 14"
50023532 LABEL LOT TOSHIBA Ã‡Ä°FT KATLI
50074003 AKSESUAR KUTUSU 20"23" (422x212x60)
50074233 LBL.CAR.BOX FREEWIEV DIGITAL
50108110 LABEL 12V/PC/1HD/PA/YP/1S/S 24H(V7)298-T
50111076 LABEL "WARNING" TOSHIBA 19795
50111240 CARTON BOX TOSHIBA TOSHIBA 19W330DB

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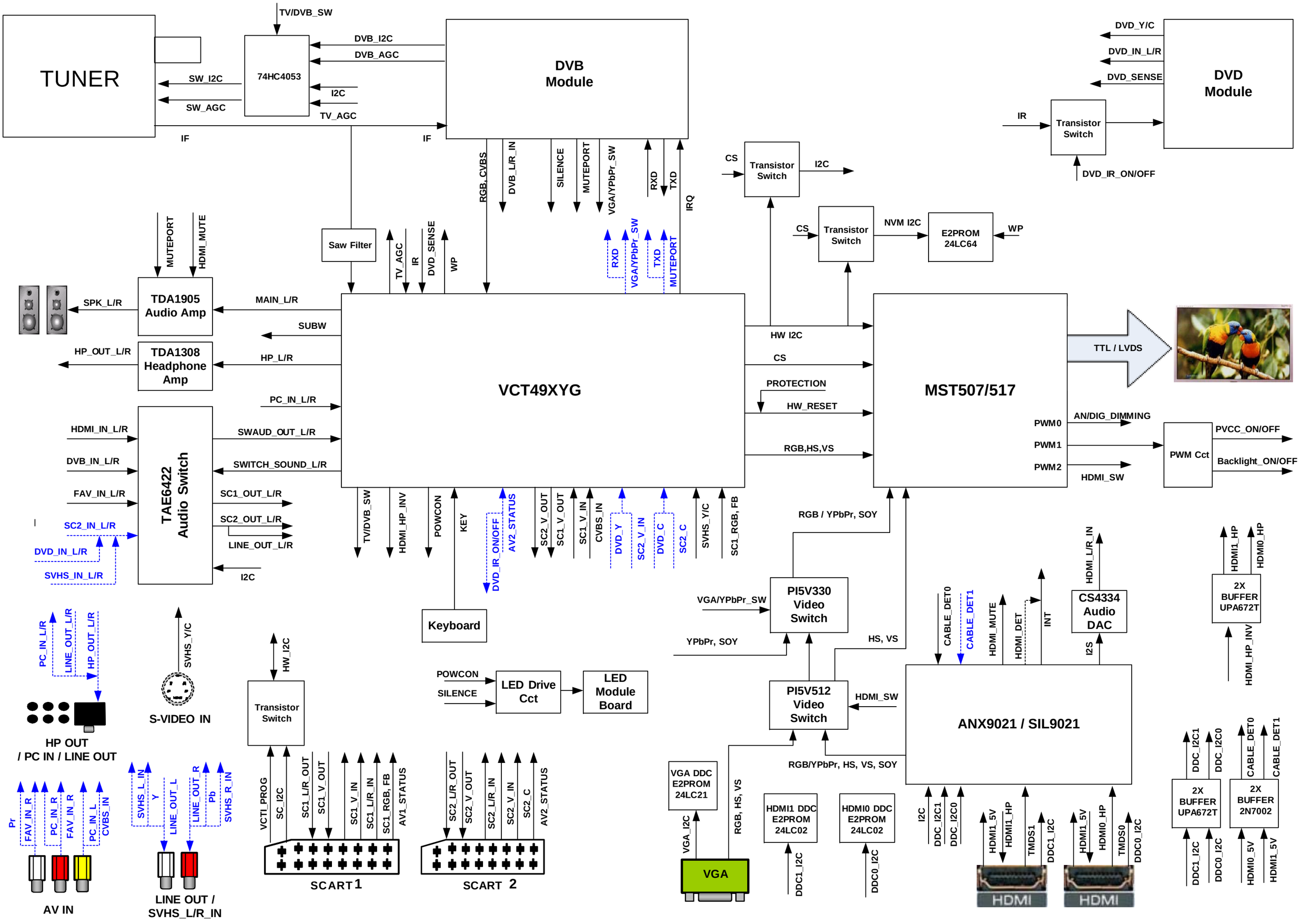

TUNER
TV/DVB_SW
74HC4053
DVB_I2C
DVB_AGC
I2C
TV_AGC
SW_I2C
SW_AGC
IF
IF
DVB Module
RGB_CVBS
DVB_L/R_IN
SILENCE
MUTEPORT
VGA/YPbPr_SW
RXD
TXD
IRQ
DVD_Y/C
DVD_IN_L/R
DVD_SENSE
IR
Transistor Switch
DVD_IR_ON/OFF
DVD Module
CS
Transistor Switch
I2C
CS
Transistor Switch
NVM I2C
E2PROM 24LC64
WP
MUTEPORT
HDMI_MUTE
Saw Filter
TV_AGC
IR
DVD_SENSE
WP
RXD
VGA/YPbPr_SW
TXD
MUTEPORT
SPK_L/R
TDA1905 Audio Amp
MAIN_L/R
SUBW
HP_OUT_L/R
TDA1308 Headphone Amp
HP_L/R
PC_IN_L/R
HDMI_IN_L/R
DVB_IN_L/R
FAV_IN_L/R
SC2_IN_L/R
DVD_IN_L/R
SVHS_IN_L/R
TAE6422 Audio Switch
SWAUD_OUT_L/R
SWITCH_SOUND_L/R
SC1_OUT_L/R
SC2_OUT_L/R
LINE_OUT_L/R
I2C
VCT49XYG
HW I2C
CS
PROTECTION
HW_RESET
RGB,HS,VS
MST507/517
TTL / LVDS
AN/DIG_DIMMING
PWM0
PWM1
PWM2
HDMI_SW
PWM Cct
PVCC_ON/OFF
Backlight_ON/OFF
TV/DVB_SW
HDMI_HP_INV
POWCON
KEY
DVD_IR_ON/OFF
AV2_STATUS
SC2_V_OUT
SC1_V_OUT
SC1_V_IN
CVBS_IN
DVD_Y
SC2_V_IN
DVD_C
SC2_C
SVHS_Y/C
SC1_RGB, FB
Keyboard
RGB / YPbPr, SOY
VGA/YPbPr_SW
YPbPr, SOY
PI5V330 Video Switch
HS, VS
CABLE_DET0
CABLE_DET1
HDMI_MUTE
HDMI_DET
INT
HDMI_L/R_IN
CS4334 Audio DAC
I2S
HDMI1_HP
HDMI0_HP
2X BUFFER UPA672T
HDMI_HP_INV
PC_IN_L/R
LINE_OUT_L/R
HP_OUT_L/R
HP OUT / PC IN / LINE OUT
SVHS_Y/C
S-VIDEO IN
HW_I2C
Transistor Switch
POWCON
SILENCE
LED Drive Cct
LED Module Board
PI5V512 Video Switch
HDMI_SW
ANX9021 / SIL9021
VGA DDC E2PROM 24LC21
VGA_I2C
VGA
RGB, HS, VS
HDMI1 DDC E2PROM 24LC02
HDMI0 DDC E2PROM 24LC02
DDC1_I2C
DDC0_I2C
RGB/YPbPr, HS, VS, SOY
I2C
DDC_I2C1
DDC_I2C0
HDMI1_5V
HDMI1_HP
TMDS1
DDC1_I2C
HDMI0_5V
HDMI0_HP
TMDS0
DDC0_I2C
HDMI
HDMI
2X BUFFER UPA672T
2X BUFFER 2N7002
DDC_I2C1
DDC_I2C0
CABLE_DET0
CABLE_DET1
Pr
FAV_IN_R
PC_IN_R
FAV_IN_R
PC_IN_L
CVBS_IN
AV IN
SVHS_L_IN
Y
LINE_OUT_L
LINE_OUT_R
Pb
SVHS_R_IN
LINE OUT / SVHS_L/R_IN
VCTI_PROG
SC_I2C
SC1_L/R_OUT
SC1_V_OUT
SC1_V_IN
SC1_L/R_IN
SC1_RGB, FB
AV1_STATUS
SCART 1
SC2_L/R_OUT
SC2_V_OUT
SC2_L/R_IN
SC2_V_IN
SC2_C
AV2_STATUS
SCART 2

IC100
ST24LC21
NC1
NC2
NC3
VSS
VCC
VCLK
SCL
SDA
R149 3k3
R152 3k3
R160 3k3
16V 100n C124
BAV70
D119
+5V
D118 BAV99
D120
BAV99
S102
R153 220R
R161 220R
PC_VS
PC_HS
D114 BAV99
D116 BAV99
R140 2k2
R142 2k2
VGA CONNECTOR
PL103
C126 12p
R128 75R
C128 12p
R137 75R
C132 12p
R143 75R
R150 100R
R151 100R
R148 100R
VGA_B
VGA_G
VGA_R
D113 BAV99
D115 BAV99
D117 BAV99
IC103
PI5V512
S
IA0
GND_1
IA1
YA
IB0
GND_2
IB1
YB
IC0
IC1
GND_3
VCC
EN
IE0
GND_6
IE1
YE
ID0
GND_5
ID1
YD
GND_4
YC
R290 100R
HDMI_SW
HDMI_PB
S160
VGA_B
S161
BAIN1
HDMI_V
S158
VGA_G
S159
GAIN1
HDMI_PB
VGA_R
S156
S157
SW GROUND
L123 BLM21A601S
C222 100n 16V
C221 100n 16V
HDMI_VS
S105
PC_VS
S116
SW_VS
HDMI_HS
S181
PC_HS
S162
SW_HS
RAIN1
IC101
PI5V330_SOIC
VGA_YPbPR_Sw
RAIN2
S142
PR
S103
GAIN1
S144
Y
S114
GAIN2
BAIN1
S143
PB
S115
BAIN2
16V 100n C149
16V 100n C145
FERIT_SMD L109
+5V
RAIN2
R220 47R
C181 47n
RAIN
10p C174
R214 75R
NC
R218 47R
C180 47n
RAIN-
SW GROUND
GAIN2
470R R226
C186 1n
SOY
R221 47R
C182 47n
GAIN
10p C175
R216 75R
R222 47R
C183 47n
GAIN-
BAIN2
R223 47R
C184 47n
BAIN
10p C176
R217 75R
R224 47R
C185 47n
BAIN-
DVB CONNECTOR
PL104
DVB_IN_R
DVB_IN_G_Y
DVB_IN_B_C
DVB_IN_CVBS
DVB_L_IN
DVB_R_IN
R239 75R
C201
R174 75R
C150
R240 75R
C200
R175 75R
C153
R178 10k
C156 4n7
L115
L116
R185 10k
4n7 C157
TP100
TP101
TP102
TP103
AGC_DVB
SILENCE
MUTEPOR
RXD
TXD
IRQ
SDA_DVB
SCL_DVB
TP104
TP105
TP106
TP107
TP108
TP111
TP109
TP110
R193 4k7
R194 100R
VGA_YPbPR_SW
R189 4k7
R202 4k7
R154 4k7
R156 4k7
PR
Y
PB
L108 FERIT_SMD
C127 100n 16V
R131 33k
R132 33k
R135 33k
R133 33k
R136 33k
R134 33k
C129 4u7 50V
C131 4u7 50V
C130 4u7 50V
R155 47R
R157 47R
R159 47R
75R R162
C138 10p 25V
75R R163
C139 10p 25V
75R R164
C140 10p 25V
16V 100n C141
D121 BAV99
16V 100n C143
D123 BAV99
D122 1N4148
16V 100n C146
D124 BAV99
L112 BLM21A601S
L113 BLM21A601S
L114 BLM21A601S
PR1
Y1
PB1
DVD CONNECTOR
SIDE A/V CONNECTOR
DVD_SENSE
DVD_L_IN
DVD_R_IN
DVD_Y
DVD_C
IR
DVD_IR_ON/OFF
C205 4u7 50V
10k R256
R255 10k
C206 4u7 50V
R257 10k
R258 10k
C207 100p 25V
R259 75R
R261 100R
C208 100p 25V
R262 100R
R260 75R
Q118 BC848B
10k R265
+3V3
PL108
1
2
3
4
5
6
7
8
9
10
PL107
SVHS
SVHS_C
SVHS_Y
JK104
JK105
JK103
JK102
PR1
PB1
Y1
L119
S141
R203 100R
CVBS_IN
75R R199
D126
C170 100p 50V
C168 100p 50V
D127
R197 75R
R196 75R
D125
C166 100p 50V
R206 100R
R201 100R
L117
S140
R191 10k
FAVINR
R198 10k
C165 50V
R207 10k
R195 10k
C169 50V
FAVINL
L118
S139
PL101
SC2_V_IN
SC2_V_OUT
SC2-C
SC2_L_IN
SC2_L_OUT
SC2_R_IN
SC2_R_OUT
AV2_STATUS
R112 100R
R108 100R
R118 100R
R115 75R
D111
C123 150p
D103
C121 150p
C111 27p
D112
R124 75R
D109
C122 100n
R100 10k
50V 4n7 C108
L100 BLM21A601S
R110 680R
C100 150p 50V
50V 4n7 C110
L103 BLM21A601S
R114 10k
50V 4n7 C114
L107 BLM21A601S
R109 680R
C105 150p 50V
C116 4n7 50V
L102 BLM21A601S
R106 75R
D108
150p C118
R101 100R
SC1_V_IN
SC1_V_OUT
C117 150p
D105
R123 75R
D102
C243 100n
100R R105
SC1-IN-FB
R121 75R
D110
C107 27p
100R R104
SC1-R
C203 10n
D128
10k R297
S145
CTI_PROG_EN
R117 75R
Tx-Clock
C102 2n2
D100
100n C102
100R R103
SC1-G
R120 75R
D104
C101 27p
C120 100n
D107
AV1_STATUS
R116 75R
Rx-Data
C103 2n2
D101
100n C103
R119 100R
SC1-B
R122 75R
D106
C119 27p
BLM21A601S L105
R113 680R
SC1_L_OUT
C112 4n7
C104 150p
BLM21A601S L104
R111 680R
SC1_R_OUT
C115 4n7
C106 150p
L101
SC1_R_IN
C109 4n7
10k R107
L106
SC1_L_IN
C113 4n7
10k R102
FROM 100
VESTEL ELECTRONICS
17MB24H I/O INT. 1of5
Date
17.10.2006
Author
GORKEM KOCAGOZOGLU
ISMAIL YILMAZLAR
HWSDA
HWSCL
VCTI_PROG_EN
10k R243
R244 10k
10k R241
R242 10k
Q115 BC848B
Q114 BC848B
Q116 BC848B
Q117 BC848B
+5V
10k R253
Rx-Data
10k R252
Tx-Clock
+8V
C137 100n 16V
R166 27k
R168 470R
BC858B Q104
IF_CVBS_OUT
Q103 BC848B
R167 10k
R170 910R
R171 75R
SC1_V_OUT
R169 820R
C144 47p 50V
C125 100n 16V
R129 27k
R138 470R
BC858B Q102
SC2_OUT
Q101 BC848B
R130 10k
R141 910R
R144 75R
SC2_V_OUT
R139 820R
C133 47p 50V
1n C142
10k R158
SVHS_L_IN
LINE_OUT_L
R155
1n C134
10k R176
SVHS_R_IN
10k R177
LINE_OUT_R
L121
subw.
L122
C204 10p
PL105
1
2
3
4
1n C241
10k R293
SVHS_L_IN
10k R294
PCIL
10k R180
JK100
L110
C147 1n 50V
C151 150p 50V
680R R172
LINE_OUT_L
1n C242
10k R295
SVHS_R_IN
10k R296
PCIR
10k R179
JK101
L111
R173 680R
C148 1n 50V
C152 150p 50V
LINE_OUT_R

TECH2949PG40B

TU300

IC302

VCT4932

IC300

TEA6422D

IC301

74HCT4053

IC303

24LC32A

PL300

PL301

PL302

PL303

PL304

PL305

KEYPAD

KEY

FOR MSTAR DEBUG

FOR FLASH PROG.AND VCTI DEBUG

GND_TUNER

IFAGC

IF1

IF2

ANIF

+8VIF

SDA_SW

SCL_SW

AGC_SW

AGC_TV

SDANVM

SCLNVM

SDA

SCL

CS

HWSDA

HWSCL

RXD

TXD

IDTV IF GON.

TV/DVB_SW

ON/OFF

SILENCE

IR

KEY

INT

MUTEPORT

TXD

RXD

MST_RESET

PROTECT

DVD_SENSE

DVB_IN_R

DVB_IN_G_Y

DVB_IN_B_C

AV1_STATUS

AV2_STATUS

DVD_IR_ON/OFF

VCTI_CABLE1_DET

VCTI_HS

HDMI_HP_INV

POWCON.

SWAUD_OUT_L

SWAUD_OUT_R

SC1_L_IN

SC2_L_IN

SVHS_L_IN

DVB_L_IN

SWITCH_SOUND_L

SWITCH_SOUND_R

FAVINL

FAVINR

HDMI_L_IN

HDMI_R_IN

SWITCH_SOUND_R

SC2_R_OUT

SC1_L_OUT

SC1_R_OUT

LINE_OUT_R

LINE_OUT_L

SC2_L_OUT

REDO

GREENO

BLUEO

RIN+

GIN+

BIN+

RIN-

GIN-

BIN-

FROM 300

VESTEL ELECTRONICS

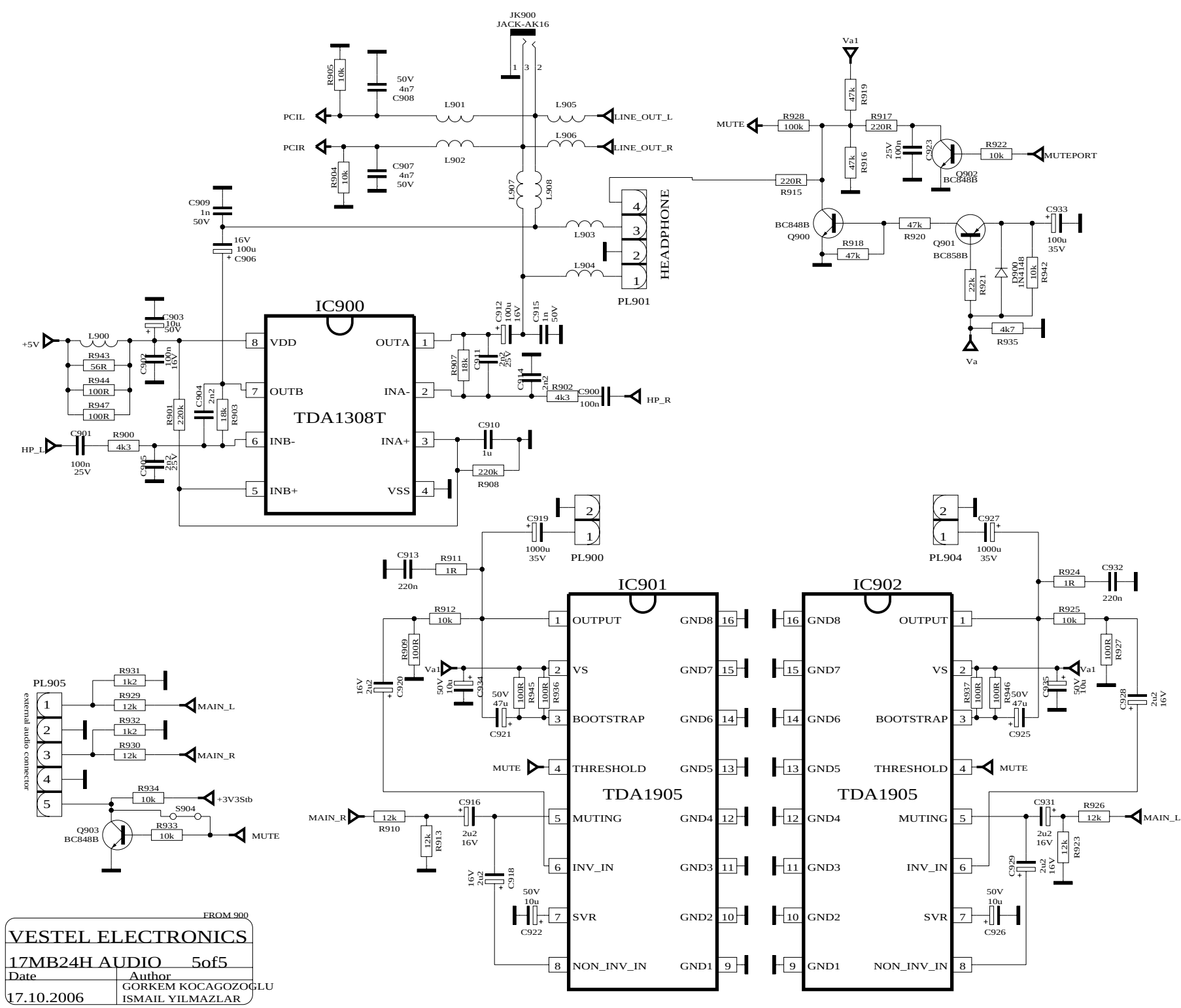
17MB24H VCTI 2of5

Date	Author
17.10.2006	GORKEM KOCAGOZOG ISMAIL YILMAZLAR

IC500
MST517A-M

VESTEL ELECTRONICS	
17MB24H VCTI 3of5	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

PL701
JK700
DC_POWER_SOCKET_20V/7.5A
F701
INV
F700
V_PSU
SMD JUMPER OPTION
F709
F705
L703
IC700
IRF7314
S1
G1
S2
G2
D1A
D1
D2A
D2
C705 100n 50V
C702 100n 50V
R703 22k
MECH_SW
22k
R700
V_GATE
C721 470u 35V
C724 100n 50V
SMD JUMPER OPTION
F711
F707
22u
L747
L708
VIN
150R 600mA lik ferit
L710
Va
LM317
IC705
IN
OUT
ADJ
C732 100u 35V
C734 100n 50V
C741 100u 16V
C745 100n 16V
+8V
R710 910R
220R
C736 100u 16V
C739 22u 50V
BC848C
Q703
R718 10k
ON/OFF/NOT
R712 47R
R715 10k
L711
150R 600mA lik ferit
DVD power connector
IDTV power connector
PL709
PL707
C802 100u 35V
L729
F702
Va
F712
F713
D707
1N4007
D723
1N4001
D726
SS33
C722 100n 50V
C725 100u 35V
C795 470u 35V
Va1
IC701
IRF7314
VIN
C700 100n 50V
C701 100n
R702 22k
R729 22k
R705 100R
R706 100R
R704 10k
ON/OFF
Q700
BC848B
R701 1k
R751 22k
R752 75k
ON/OFF
Q708
BC848B
C796 22u 50V
75k
R753
Q712
BC558B
R785 3k3
R769 3k3
R767 4k7
33k
R768
Q713
BC848B
ON/OFF
33k
R770
R771 33k
C706 100n 25V
PL700
150R 600mA lik ferit
L705
L707
PL708
VPS Panel Supply +12V/+5V/+3V3
+VPS
C727 100n 16V
L709 22u
F714
C729 100n 16V
C730 470u 16V
fix output kullanilacak
LM1086
IC702
VIN VOUT
GND
+5V/+3V3
150R 600mA lik ferit
L701
C703 100n 16V
C708 100u 16V
C710 100n 16V
+3V3Stb
C797 100n 16V
22u 16V
C798
R759 220R
C714 100n 16V
C717 100u 16V
150R 600mA lik ferit
L700
R760 390R
1R
R761
PL704
+5VStb
+3V3Stb
150R 600mA lik ferit
L702
IC703
LM1117
IN
OUT
GND
VOUT
C704 100n 16V
C709 100u 16V
C711 100n 16V
C715 100n 16V
C718 100u 16V
+1V8Stb
PL705
F704
+5V
+3V3
Q702
FDC642P
C707 100n
R708 22k
3k3
R786
3k3
R787
3k3
R788
PL706
BKL_ON/OFF
AN/DIG_DIM
S702
ON/OFF
S701
ON/OFF/NOT
+33V
C712 10u 50V
R709 22k
150R 600mA lik ferit
L706
IC704
LM1117
C719 100n 16V
C720 100u 16V
C723 100n 16V
C726 100n 16V
C728 100u 16V
+1V8
ON/OFF
R707 10k
Q701
BC848B
V_PSU
470R
R783
BC858B
Q715
V_GATE
R782 33k
10k
R784
Q718
BC848B
V_DELAY
C3V6
D717
R775 10k
V_PSU
BC858B
Q716
R774 10k
R773 10k
VIN
D719
+5V/+3V3
BAW56
+3V3Stb
D720
+5VStb
BAW56
R781 3k3
47u 16V
C805 100n
R776 10k
PROTECT
S703
Q714
BC848B
R772 1k
C799 100n 16V
R756 10k
BC858B
Q709
R758 10k
R754 10k
+3V3Stb
D721
+8V
BAW56
+5V
D722
+3V3
BAW56
Va
V_DELAY
Q719
BC848B
R779 10k
Q717
BC858B
D716
1N4148
C804 100u 16V
R777 1k
S704
R778 10k
Q721
BC848B
V_PSU
V_PSU
R798 10k
D725
1N4148
MECH_SW
Q720
BC858B
V_PSU
10k
R789
R791 100R
Q722
BC848B
R790 1k
C806 16V 10u
L712
150R 600mA lik ferit
L741
LM317
IC706
ADJ
+8V
16V 100u
C733 C735 100n 16V
C737 100u 16V
C740 220u 25V
R713 220R
C743 16V 100u
C746 100n
R714 680R
R716 1R
+5VStb
Q710
FDC642P
L748 22u
+5V
R749
R762 10k
C800 100n
R763 10k
C801 100n
ON/OFF
R764 33k
Q711
BC848B
R765 33k
L742
L721
L724
Va
L727
L728
C757 100n 50V
+3V3Stb ON/OFF/NOT
24V Adapter 12V VPS Oprtion
IC713
MP1593-DC/DC
BS
IN
SW
GND
SS
EN
COMP
FB
Optional NC
R731 47R
C778 2n2 1kV
C784 50V 100n
R748 1k
R739 22k
R741 10k
BC848B
Q706
C762 100n
C766 470u
C768 10u
C771 10u
C774 100n
R737 10k
C792 3k3 50V
C794 10n 50V
Optional NC
R734 24k7
86K
R735 82k
R743 10k
L733
10u
L734
22uH_3.9A_SMD
L739
L740
C786 22u 16V
C788 22u 16V
C790 470u 16V
Optional NC
Optional NC
R729 10k
IC711
SS33
Optional NC
C775 470p 50V
R724 will be 15k ohm for 3.3V output.
C769 will be 8.2 nF for 3.3V output.
R727 will be 5.6k ohm for 3.3V output.
IC708
MP1593-DC/DC
BS
IN
SW
GND
SS
EN
COMP
FB
Optional NC
R720 47R
C752 22n 50V
C769 1k
C780 10n
R727 7k5
R726 10k
R723 22k
R724 30k
VIN
L713
L714
C731 100n 50V
C738 100n 50V
C742 470u 35V
C744
C747 10u 50V
C748 100n 50V
Optional NC
L722
10u
L723
22uH_3.9A_SMD
L730
L744
L731
F708
SMD JUMPER OPTION
C761 22u 16V
C764 22u 16V
C776 22u 16V
C779 22u 16V
C781 100n 50V
C782 470u 16V
+5V/+3V3
Optional NC
Optional NC
R719 10R
IC707
SS33
Optional NC
C749 470p 50V
+3V3Stb
ON/OFF/NOT
S2
S1
PL703
1
2
ON/OFF
R744 4k7
10k
R745
Q707
BC848C
10k
R746
L715
+8V
L743
Va
L716
+5V
R717 22R
S705
L751 150uH
L717 150uH
S706
L750 150uH
L720 150uH
C760 100n 25V
C762 100n 25V
D701
1N4148
BC337
Q704
C754 820p 50V
C755 4n7 50V
R721 4k7
C753 33n 50V
D703
BAV99
C758 33u 50V
R722 47R
C759 3u3 50V
+33V
IC709
S33
D700
1N4148
FROM 700
VESTEL ELECTRONICS
17MB24H POWER 4of5
Date
17.10.2006
Author
GORKEM KOCAGOZOGLU
ISMAIL YILMAZLAR



VESTEL ELECTRONICS	
17MB24H AUDIO 5of5	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU ISMAIL YILMAZLAR

IC600

HDMI CONNECTOR 1

HDMI CONNECTOR 0

VESTEL ELECTRONICS	
17MB24H HDMI 6of6	
Date	Author
17.10.2006	GORKEM KOCAGOZOGLU MELIH CINAR / METEHAN ALTUNUZ

IC100
ST24LC21
NC1
NC2
NC3
VSS
VCC
VCLK
SCL
SDA
R149 3k3
R152 3k3
R160 3k3
16V 100n C124
BAV70
D119
+5V
D118 BAV99
D120
BAV99
S102
R153 220R
R161 220R
PC_VS
PC_HS
D114 BAV99
D116 BAV99
R140 2k2
R142 2k2
VGA CONNECTOR
PL103
C126 12p
R128 75R
C128 12p
R137 75R
C132 12p
R143 75R
R150 100R
R151 100R
R148 100R
VGA_B
VGA_G
VGA_R
D113 BAV99
D115 BAV99
D117 BAV99
IC103
PI5V512
S
IA0
GND_1
IA1
YA
IB0
GND_2
IB1
YB
IC0
IC1
GND_3
VCC
EN
IE0
GND_6
IE1
YE
ID0
GND_5
ID1
YD
GND_4
YC
R290 100R
HDMI_SW
HDMI_PB
S160
VGA_B
S161
BAIN1
HDMI_V
S158
VGA_G
S159
GAIN1
HDMI_PB
VGA_R
S156
S157
SW GROUND
L123 BLM21A601S
C222 100n 16V
C221 100n 16V
HDMI_VS
S105
PC_VS
S116
SW_VS
HDMI_HS
S181
PC_HS
S162
SW_HS
RAIN1
IC101
PI5V330_SOIC
VGA_YPbPR_Sw
RAIN2
S142
PR
S103
GAIN1
S144
Y
S114
GAIN2
BAIN1
S143
PB
S115
BAIN2
16V 100n C149
16V 100n C145
FERIT_SMD L109
+5V
RAIN2
R220 47R
C181 47n
RAIN
10p C174
R214 75R
NC
R218 47R
C180 47n
RAIN-
SW GROUND
GAIN2
470R R226
C186 1n
SOY
R221 47R
C182 47n
GAIN
10p C175
R216 75R
R222 47R
C183 47n
GAIN-
BAIN2
R223 47R
C184 47n
BAIN
10p C176
R217 75R
R224 47R
C185 47n
BAIN-
DVB CONNECTOR
PL104
DVB_IN_R
DVB_IN_G_Y
DVB_IN_B_C
DVB_IN_CVBS
DVB_L_IN
DVB_R_IN
R239 75R
C201
R174 75R
C150
R240 75R
C200
R175 75R
C153
R178 10k
C156 4n7
L115
L116
R185 10k
4n7 C157
TP100
TP101
TP102
TP103
AGC_DVB
SILENCE
MUTEPOR
RXD
TXD
IRQ
SDA_DVB
SCL_DVB
TP104
TP105
TP106
TP107
TP108
TP111
TP109
TP110
R193 4k7
R194 100R
VGA_YPbPR_SW
R189 4k7
R202 4k7
R154 4k7
R156 4k7
PR
Y
PB
L108 FERIT_SMD
C127 100n 16V
R131 33k
R132 33k
R135 33k
R133 33k
R136 33k
R134 33k
C129 4u7 50V
C131 4u7 50V
C130 4u7 50V
R155 47R
R157 47R
R159 47R
75R R162
C138 10p 25V
75R R163
C139 10p 25V
75R R164
C140 10p 25V
16V 100n C141
D121 BAV99
16V 100n C143
D123 BAV99
D122 1N4148
16V 100n C146
D124 BAV99
L112 BLM21A601S
L113 BLM21A601S
L114 BLM21A601S
PR1
Y1
PB1
DVD CONNECTOR
SIDE A/V CONNECTOR
DVD_SENSE
DVD_L_IN
DVD_R_IN
DVD_Y
DVD_C
IR
DVD_IR_ON/OFF
C205 4u7 50V
10k R256
R255 10k
C206 4u7 50V
R257 10k
R258 10k
C207 100p 25V
R259 75R
R261 100R
C208 100p 25V
R262 100R
R260 75R
Q118 BC848B
10k R265
+3V3
PL108
1
2
3
4
5
6
7
8
9
10
PL107
SVHS
SVHS_C
SVHS_Y
JK104
JK105
JK103
JK102
PR1
PB1
Y1
L119
S141
R203 100R
CVBS_IN
75R R199
D126
C170 100p 50V
C168 100p 50V
D127
R197 75R
R196 75R
D125
C166 100p 50V
R206 100R
R201 100R
L117
S140
R191 10k
FAVINR
R198 10k
C165 50V
R207 10k
R195 10k
C169 50V
FAVINL
L118
S139
PL101
SC2_V_IN
SC2_V_OUT
SC2-C
SC2_L_IN
SC2_L_OUT
SC2_R_IN
SC2_R_OUT
AV2_STATUS
R112 100R
R108 100R
R118 100R
R115 75R
D111
C123 150p
D103
C121 150p
C111 27p
D112
R124 75R
D109
C122 100n
R100 10k
50V 4n7 C108
L100 BLM21A601S
R110 680R
C100 150p 50V
50V 4n7 C110
L103 BLM21A601S
R114 10k
50V 4n7 C114
L107 BLM21A601S
R109 680R
C105 150p 50V
C116 4n7 50V
L102 BLM21A601S
R106 75R
D108
150p C118
R101 100R
SC1_V_IN
SC1_V_OUT
C117 150p
D105
R123 75R
D102
C243 100n
100R R105
SC1-IN-FB
R121 75R
D110
C107 27p
100R R104
SC1-R
C203 10n
D128
10k R297
S145
CTI_PROG_EN
R117 75R
Tx-Clock
C102 2n2
D100
100n C102
100R R103
SC1-G
R120 75R
D104
C101 27p
C120 100n
D107
AV1_STATUS
R116 75R
Rx-Data
C103 2n2
D101
100n C103
R119 100R
SC1-B
R122 75R
D106
C119 27p
BLM21A601S L105
R113 680R
SC1_L_OUT
C112 4n7
C104 150p
BLM21A601S L104
R111 680R
SC1_R_OUT
C115 4n7
C106 150p
L101
SC1_R_IN
C109 4n7
10k R107
L106
SC1_L_IN
C113 4n7
10k R102
FROM 100
VESTEL ELECTRONICS
17MB24H I/O INT. 1of5
Date
17.10.2006
Author
GORKEM KOCAGOZOGLU
ISMAIL YILMAZLAR
HWSDA
HWSCL
VCTI_PROG_EN
10k R243
R244 10k
10k R241
R242 10k
Q115 BC848B
Q114 BC848B
Q116 BC848B
Q117 BC848B
+5V
10k R253
Rx-Data
10k R252
Tx-Clock
+8V
C137 100n 16V
R166 27k
R168 470R
BC858B Q104
IF_CVBS_OUT
Q103 BC848B
R167 10k
R170 910R
R171 75R
SC1_V_OUT
R169 820R
C144 47p 50V
C125 100n 16V
R129 27k
R138 470R
BC858B Q102
SC2_OUT
Q101 BC848B
R130 10k
R141 910R
R144 75R
SC2_V_OUT
R139 820R
C133 47p 50V
1n C142
10k R158
SVHS_L_IN
LINE_OUT_L
R155
1n C134
10k R176
SVHS_R_IN
10k R177
LINE_OUT_R
L121
subw.
L122
C204 10p
PL105
1
2
3
4
1n C241
10k R293
SVHS_L_IN
10k R294
PCIL
10k R180
JK100
L110
C147 1n 50V
C151 150p 50V
680R R172
LINE_OUT_L
1n C242
10k R295
SVHS_R_IN
10k R296
PCIR
10k R179
JK101
L111
R173 680R
C148 1n 50V
C152 150p 50V
LINE_OUT_R